TSD File Inventory Index

Date: December 12, 2000

Initial: CMGreeks

Facility Name: Olin Corporation (Joliet Plant – One folder/site)

Facility Identification Number: ILD 049 809 379

A.1 General Correspondence		**B.2 Permit Docket (B.1.2)**	
A.2 Part A / Interim Status	Y	.1 Correspondence	
.1 Correspondence	Y	.2 All Other Permitting Documents (Not Part of the ARA)	
.2 Notification and Acknowledgment	Y	**C.1 Compliance - (Inspection Reports)**	Y
.3 Part A Application and Amendments	Y	**C.2 Compliance/Enforcement**	Y
.4 Financial Insurance (Sudden, Non Sudden)		.1 Land Disposal Restriction Notifications	
.5 Change Under Interim Status Requests		.2 Import/Export Notifications	
.6 Annual and Biennial Reports		**C.3 FOIA Exemptions - Non-Releasable Documents**	
A.3 Groundwater Monitoring		**D.1 Corrective Action/Facility Assessment**	Y
.1 Correspondence		.1 RFA Correspondence	
.2 Reports		.2 Background Reports, Supporting Docs and Studies	
A.4 Closure/Post Closure	Y	.3 State Prelim. Investigation Memos	
.1 Correspondence	Y	.4 RFA Reports	Y
.2 Closure/Post Closure Plans, Certificates, etc	Y	**D. 2 Corrective Action/Facility Investigation**	
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.1 Correspondence		.2 RFI Workplan	
.2 Reports		.3 RFI Program Reports and Oversight	
B.1 Administrative Record		.4 RFI Draft /Final Report	

Total - 1

.5 RFI QAPP		.7 Lab data, Soil Sampling/Groundwater	
.6 RFI QAPP Correspondence		.8 Progress Reports	
.7 Lab Data, Soil Sampling/Groundwater		D.5 Corrective Action/Enforcement	
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.9 Interim Measures Correspondence		.2 Other Non-AR Documents	
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.1 CMS Correspondence		E. Boilers and Industrial Furnaces (BIF)	
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.4 CMS Draft/Final Report		F Imagery/Special Studies (Videos, photos, disks, maps, blueprints, drawings, and other special materials.)	
.5 Stabilization		G.1 Risk Assessment	
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.1 CMI Correspondence		.4 Ecological - Administrative Record	
.2 CMI Workplan		.5 Permitting	
.3 CMI Program Reports and Oversight		.6 Corrective Action Remediation Study	
.4 CMI Draft/Final Reports		.7 Corrective Action/Remediation Implementation	
.5 CMI QAPP		.8 Endangered Species Act	
.6 CMI Correspondence		.9 Environmental Justice	

Note: Transmittal Letter to Be Included with Reports.
Comments: Documents do not go into individual folders per schedule

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
111 West Jackson Blvd.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
RCRA ACTIVITIES

APR 5 1982

W. A. Oppold
Olin Corporation
120 Long Ridge Road
Stamford, CT 06904

RE: Interim Status Acknowledgement USEPA ID No. ILD049809379
FACILITY NAME: Olin Corporation

Dear Mr. Oppold:

This is to acknowledge that the U.S. Environmental Protection Agency (USEPA) has completed processing your Part A Hazardous Waste Permit Application. It is the opinion of this office that the information submitted is complete and that you, as an owner or operator of a hazardous waste management facility, have met the requirements of Section 3005(e) of the Resource Conservation and Recovery Act (RCRA) for Interim Status. However, should USEPA obtain information which indicates that your application was incomplete or inaccurate, you may be requested to provide further documentation of your claim for Interim Status. Our opinion will be reevaluated on the basis of this information.

As an owner or operator of a hazardous waste management facility, you are required to comply with the interim status standards as prescribed in 40 CFR Parts 122 and 265, or with State rules and regulations in those States which have been authorized under Section 3006 of RCRA. In addition, you are reminded that operating under interim status does not relieve you from the need to comply with all applicable State and local requirements.

The printout enclosed with this letter identifies the limit(s) of the process design capacities your facility may use during the interim status period. This information was obtained from your Part A Permit application. If you wish to handle new wastes, to change processes, to increase the design capacity of existing processes, or to change ownership or operational control of the facility, you may do so only as provided in 40 CFR Sections 122.22 and 122.23.

As stated in the first paragraph of this letter, you have met the requirements of 40 CFR Part 122.23; your facility may operate under interim status until such time as a permit is issued or denied. This will be preceded by a request from this office or the State (if authorized) for Part B of your application. Please contact Arthur Kawatachi of my staff at (312) 886-7449, if you have any questions concerning this letter or the enclosure.

Sincerely yours,

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

TBA
04-05-82

Enclosure

cc: Olin Corporation - Joliet, IL

If your review indicates that a permit is required, but certain information on your application is incorrect, please submit a revised Part A permit application with the appropriate changes to this Regional Office. If no response is received in this office within 30 days, we will assume your facility requires a permit. Accordingly, we will continue to process your application.

Please contact Mrs. Juana Rojo of my staff, at (312) 886-1477, if you have any questions on this matter.

Sincerely yours,

William H. Miner, Chief
Technical, Permits, and Compliance Section

Permit #		Unit	Exp. Date
05010070	IEPA Air	Soda Ash Dissolvers E&W	2- 9-85
05010071	"	Soda Ash Baghouses	8- 1-84
05010072	"	TSP Mix Tanks - 2	8- 1-84
05010073	"	DSP Evaporators - 3	8- 1-84
05010074	"	Dry Mix Dust Collector	8-10-83
05010075	"	DSP-A Dust Collector	2-10-85
05010076	"	TSP Screening Dust Collector	2-10-85
05010077	"	SAPP PKG & Loading Dust Collector	2- 9-85
05010078	"	MSP Dust Collector	2-12-85
05010079	"	MSP Evaporators - 2	2-12-85
05010080	"	SPP Mix Tanks	8- 1-84
05010081	"	SPP Evaporators - 2	9- 6-84
05010082	"	STPP Mix Tanks - 6	8- 1-84
05010083	"	Hydrator Conveyor Scrubber	8- 1-84
05010084	"	Tripoly A&B Evaporators - 11	8- 1-84
05010085	"	TEOX Process Dust Collector	8- 1-84
05010086	"	TEOX PKG Dust Collector	8- 1-84
05010088	"	Boilerhouse Ash Scrubber	8- 1-84
05060059	"	Coal Car Heater Gas Fired	1-16-85
05090074	"	Soda Ash Unloading (Dense Soda Ash)	1- 5-86
05100064	"	Soda Ash Handling (Dense Soda Ash)	12- 1-85
06090075	"	New Phos Rock Grinding Baghouse	9-27-81
06090074	"	Phos Rock and Soda Ash Transfer System	9-27-81
06090073	"	SF Packer Dust Collector	9-27-81
06120054	"	HGF Roto Louvre Dryer	8-27-84
07030059	"	Dock and Silo Vac Cleaning System	10-29-84
07050040	"	Portable Railcar Transfer System	5-25-82
03050436	"	Boiler No. 1	8- 8-81
06030071	"	Boiler No. 2	8- 8-81
06030070	"	Boiler No. 3	8- 8-81
78080016	"	Tripoly C KILN Baghouse	4- 1-85
09010039	"	Lime Tank Dust Collector (Storm water Project)	2- 7-84
04060025	"	Phosphate Products Grinding, Transfer & Drying Pro.	3-26-84
04060025	"	STPP AN, AS, BN & BS Grinders	3-26-84
04060025	"	STPP E Powder Transfer	3-26-84
04060025	"	STPP Silo Storage	3-26-84
04060025	"	STPP C Grinder, Transfer and Hydrated Transfer	3-26-84
04060025	"	SSF Dryer	3-26-84
04060025	"	SPP Cooler	3-26-84
04060025	"	MSP Dryer	3-26-84
04060025	"	TSP Dryer	3-26-84
04060025	"	DSP Dryer	3-26-84
04060025	"	TSP-CL Dryer	3-26-84
09080020	"	Phos Acid Plant Digesters and Rock Slurry Tanks	9-12-84
06030069	"	Boiler No. 4	12- 3-84
C8002142	"	Tripoly KILNS AN & AS (Construction)	4- 4-81
C8002142	"	Tripoly KILNS BN & BS (Construction)	4- 4-81
73080090	"	Tripoly C Cooler Dust Collector	4- 6-85
1707401	U.S. Corp of Engrs.	Dock Dredging	12-31-83

OLIN CORPORATION
JOLIET PLANT

Environmental Permits (all types)

Permit #		Unit	Exp. Date
0553	S.W. Hauling	Vactor	9-30-81
998724	S.W. Disposal	Sanitary Sewage Treat Plant	9-18-81
1978-EO-1610-1	IEPA Water	TRP #1	11-1-80
1978-EO-1611	"	TRP #2	11-1-80
1978-EA-1792	"	Stormwater Impoundment (Construction)	
IL0002020	"	NPDES	3-31-81
1978-EA-2402-1	"	Stormwater Treatment (Construction)	
1974-EP-347	"	Gypsum Pile Surge Pond	
04050051	IEPA Air	Boiler #5	1-3-84
80080001	"	Tripoly Kilns AN & AS	9-21-81
80080002	"	Tripoly Kilns BN & BS	9-21-81
04080182	"	Tripoly C Plant	8- 8-84
04110089	"	Group II - HGF N-Dust. Coll.	7-22-84
04110099	"	" " S " "	7-22-84
04110100	"	" " AC DRYER	7-22-84
04110088	"	" TSP Airveryor scrubber	7-22-84
04110095	"	" 2-SAPP DRYERS	10-31-84
04110096	"	" TSP Mother Liquor Evaps (E&W)	7-22-84
04110097	"	" DSP-A Drum DRYER (E&W)	7-22-84
04110098	"	" HC/Mix Tanks	7-22-84
04110090	"	" Tripoly A&B Calcines Hoods	7-22-84
04110101	"	" Tripoly B Hydrator W. Scrub	7-22-84
04110091	"	" TSP-Cl Dehumid. Reg.	7-22-84
04110102	"	" TSP-Cl Small Scrubber	7-22-84
04110103	"	" TSP-Cl Stedman Mixers	7-22-84
04110092	"	" SPP west M-Series Furnace	7-22-84
04110105	"	" " east M-Series Furnace	7-23-84
04110106	"	" SPP 67 Furnace Feed Tank	7-23-84
04110107	"	" SPP west Dust Collector	7-23-84
04110108	"	" " east Dust Collector	7-23-84
04110116	"	" SPP 67 Furnace	7-23-84
04110109	"	" SPP-M Series Furn. Feed Tanks	7-24-84
04110093	"	SF weak liquor tank	7-22-84
04110110	"	SF weak caustic tank	7-24-84
04110111	"	SF SSF slurry tank	7-24-84
04110112	"	SF Mix tank	7-24-84
04110113	"	SF Powder Pack Dust Coll.	7-24-84
04110114	"	SF wet scrubber	8-12-84
04110115	"	SF trans. & Bulk hand. dust coll.	7-24-84
05010064	"	N-SSF dust collector	8-27-84
05010065	"	Acid treat tank #3	8-27-84
05010066	"	Vac Pump Discharge	2- 9-85
05010067	"	Acid Cooling Towers - 2	2- 9-85
05010068	"	MSP Mix tanks - 8	2- 9-85
05010069	"	DSP Mix tanks - 6	2- 9-85

17

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:
5HW-13

W. A. Oppold, President - Industrial Chemicals
Olin Chemicals Corporation
Joliet Plant
P.O. Box 2219
Joliet, Ill.
60434-
2219

RE: Request for Information--Hazardous Waste Permit Review (Small Quantity Generator)
FACILITY NAME: Olin Corporation
U.S. EPA ID NO.: ILD 049 809 379

Dear Mr. Oppold:

This is to acknowledge that the United States Environmental Protection Agency has completed reviewing your Part A Hazardous Waste Permit Application. Our review indicates your facility may not require a permit under §3005 of the Resource Conservation and Recovery Act; however, further clarification is needed.

Based on the information submitted, your facility appears to qualify for the small quantity generator exclusion as defined in 40 CFR Part 261.5 (enclosed). Please review these requirements to verify that your facility qualifies for the small quantity generator exclusion from November 19, 1980, to the present. If it does, a permit is not required, and you should withdraw your permit application. Please submit your determination in writing, signed and certified by an authorized person in accordance with 40 CFR Part 270.11 (enclosed), requesting that your application be withdrawn. If at any time, since November 19, 1980, your operation (1) did not qualify for the special requirements for generators, of small quantities of hazardous wastes, and (2) included treatment, storage, or disposal of hazardous waste subject to 40 CFR Part 265, a closure plan must be filed with the withdrawal request. Requirements for closure are found at 40 CFR Part 265 Subpart G.

If your review indicates that a permit is required, but certain information on your application is incorrect, please submit a revised Part A with the appropriate changes to this Regional Office. If no response is received in this office within 30 days, we will assume your facility requires a permit. Accordingly, we will continue to process your application.

Please do not hesitate to contact the Technical, Permits, and Compliance Section at (312) 353-2197 for assistance, if you have any questions. Please refer to "Request for Information--Small Quantity Generator," in all correspondence on this matter.

Same Add. As Above

cc: Arnold Feldman, Manager
Environmental Affairs

Sincerely, yours,

Karl J. Klepitsch, Jr.

Karl J. Klepitsch, Jr., Chief
Waste Management Branch

Enclosures

OK DH 11/17/83

J. MAY KA

Olin CHEMICALS

JOLIET PLANT P. O. BOX 130, JOLIET, ILLINOIS 60434
815—727-4901 312—242-2284

November 25, 1986

Certified Mail

Mr. Valdas V. Adamkus
Regional Administrator
United States Environmental Protection Agency
Region 5
230 S. Dearborn Street
Chicago, IL 60606

ILD049809379 C. TSD, PA, 9

Mr. Adamkus:

Notification is hereby being submitted, as required by 40 CFR 761.180, to inform you that the PCB storage area at Olin Corporation's Joliet, Illinois Plant has officially ceased storage operations. All PCBs and PCB items have been removed, operation has ceased and storage pans have been decontaminated. All records regarding PCB storage and disposal will be retained at the plant for five years, as required. The facility location is:

Olin Corporation - Joliet Plant
Patterson & Laraway Roads
Joliet, IL 60436

If there are any questions, please contact Mr. Jeff DeJule, Mgr., Environmental Affairs at (815) 727-4901.

Very truly yours,

WD McGlasson

W. G. McGlasson
Plant Manager

flw

cc: D. Booth
M. Flynn
D. Morgan
R. Tarlini

EPA

ACKNOWLEDGEMENT OF NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
(VERIFICATION)

This is to acknowledge that you have filed a Notification of Hazardous Waste Activity for the installation located at the address shown in the box below to comply with Section 3010 of the Resource Conservation and Recovery Act *(RCRA)*. Your EPA Identification Number for that installation appears in the box below. The EPA Identification Number must be included on all shipping manifests for transporting hazardous wastes; on all Annual Reports that generators of hazardous waste, and owners and operators of hazardous waste treatment, storage and disposal facilities must file with EPA; on all applications for a Federal Hazardous Waste Permit; and other hazardous waste management reports and documents required under Subtitle C of RCRA.

EPA I.D. NUMBER → ILD049809379 REACKNOWLEDGEMENT

OLIN CORPORATION
PO BOX 130
JOLIET IL 60434

INSTALLATION ADDRESS →

PATTERSON AND LARAWAY ROADS
JOLIET IL 60434

EPA Form 8700-12B (4-80)

09/28/81

Please print or type with ELITE type (12 characters/inch) in the unshaded areas only.

Form Approved OMB No. 158-S79016
GSA No. 0246-EPA-OT

EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

NOTIFICATION OF HAZARDOUS WASTE ACTIVITY

INSTRUCTIONS: If you received a preprinted label, affix it in the space at left. If any of the information on the label is incorrect, draw a line through it and supply the correct information in the appropriate section below. If the label is complete and correct, leave Items I, II, and III below blank. If you did not receive a preprinted label, complete all items. "Installation" means a single site where hazardous waste is generated, treated, stored and/or disposed of, or a transporter's principal place of business. Please refer to the INSTRUCTIONS FOR FILING NOTIFICATION before completing this form. The information requested herein is required by law *(Section 3010 of the Resource Conservation and Recovery Act).*

INSTALLATION'S EPA I.D. NO.	ILD049809379
NAME OF INSTALLATION	
II. INSTALLATION MAILING ADDRESS	OLIN CORPORATION PO BOX 130 JOLIET, IL 60434
III. LOCATION OF INSTALLATION	PATTERSON RD JOLIET, IL 60434

000464 AUG 20 80

DETACH

FOR OFFICIAL USE ONLY

COMMENTS: C

INSTALLATION'S EPA I.D. NUMBER: S FILD049809379 T/A C 1

APPROVED: A

DATE RECEIVED (yr., mo., & day): 800818

I. NAME OF INSTALLATION

II. INSTALLATION MAILING ADDRESS

STREET OR P.O. BOX: C 3

CITY OR TOWN | ST. | ZIP CODE: C

III. LOCATION OF INSTALLATION

STREET OR ROUTE NUMBER: C 5

CITY OR TOWN | ST. | ZIP CODE: C 6

IV. INSTALLATION CONTACT

NAME AND TITLE *(last, first, & job title)*: C 2 RICHARD K HILL MGR ENV. AFFRS.

PHONE NO. *(area code & no.)*: 815-727-4901

V. OWNERSHIP

A. NAME OF INSTALLATION'S LEGAL OWNER: C 8 OLIN CORPORATION

DETACH

B. TYPE OF OWNERSHIP *(enter the appropriate letter into box)*

F = FEDERAL
M = NON–FEDERAL

M

VI. TYPE OF HAZARDOUS WASTE ACTIVITY *(enter "X" in the appropriate box(es))*

- [X] A. GENERATION
- [ ] B. TRANSPORTATION *(complete item VII)*
- [X] C. TREAT/STORE/DISPOSE
- [ ] D. UNDERGROUND INJECTION

VII. MODE OF TRANSPORTATION *(transporters only – enter "X" in the appropriate box(es))*

- [ ] A. AIR
- [ ] B. RAIL
- [ ] C. HIGHWAY
- [ ] D. WATER
- [ ] E. OTHER *(specify)*:

VIII. FIRST OR SUBSEQUENT NOTIFICATION

Mark "X" in the appropriate box to indicate whether this is your installation's first notification of hazardous waste activity or a subsequent notification. If this is not your first notification, enter your Installation's EPA I.D. Number in the space provided below.

- [X] A. FIRST NOTIFICATION
- [ ] B. SUBSEQUENT NOTIFICATION *(complete item C)*

C. INSTALLATION'S EPA I.D. NO.: ILD049809379

IX. DESCRIPTION OF HAZARDOUS WASTES

Please go to the reverse of this form and provide the requested information.

AUG 18 1980

CONTINUE ON REVERSE

D. – FOR OFFICIAL USE ONLY

S												T/A	C
W	I	L	D	0	4	9	8	0	7	3	7	9	2	1
1	2										13	14	15	

IX. DESCRIPTION OF HAZARDOUS WASTES *(continued from front)*

A. HAZARDOUS WASTES FROM NON–SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.31 for each listed hazardous waste from non–specific sources your installation handles. Use additional sheets if necessary.

1	2	3	4	5	6
F002	F003	F005			
7	8	9	10	11	12

B. HAZARDOUS WASTES FROM SPECIFIC SOURCES. Enter the four–digit number from 40 CFR Part 261.32 for each listed hazardous waste from specific industrial sources your installation handles. Use additional sheets if necessary.

13	14	15	16	17	18
19	20	21	22	23	24
25	26	27	28	29	30

C. COMMERCIAL CHEMICAL PRODUCT HAZARDOUS WASTES. Enter the four–digit number from 40 CFR Part 261.33 for each chemical substance your installation handles which may be a hazardous waste. Use additional sheets if necessary.

31	32	33	34	35	36
U239	U002	U013	U133	U154	U196
37	38	39	40	41	42
43	44	45	46	47	48

D. LISTED INFECTIOUS WASTES. Enter the four–digit number from 40 CFR Part 261.34 for each listed hazardous waste from hospitals, veterinary hospitals, medical and research laboratories your installation handles. Use additional sheets if necessary.

49	50	51	52	53	54

E. CHARACTERISTICS OF NON–LISTED HAZARDOUS WASTES. Mark "X" in the boxes corresponding to the characteristics of non–listed hazardous wastes your installation handles. *(See 40 CFR Parts 261.21 – 261.24.)*

☐ 1. IGNITABLE (D001) ☒ 2. CORROSIVE (D002) ☐ 3. REACTIVE (D003) ☐ 4. TOXIC (D000)

X. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

SIGNATURE	NAME & OFFICIAL TITLE *(type or print)*	DATE SIGNED
M. Davenport	Plant Manager	8/14/80

EPA Form 8700-12 (6-80) REVERSE

DETACH

DETACH

Olin CHEMICALS GROUP
JOLIET PLANT, P.O. BOX 2219, JOLIET, ILLINOIS 60434
(815) 727-4901 (312) 242-2284

February 27, 1986

Mr. David A. Stringham
Chief, Solid Waste Branch
RCRA Activities, Revion V
P. O. Box A3587
Chicago, IL 60690

Attention: ATKJG

Re: ILD049809379

Dear Mr. Stringham:

Referenced is your letter, received January 21, 1986, regarding a Hazardous Waste Permit Application.

Olin Corporation no longer has a Hazardous Waste Permit Application request before the USEPA nor the Illinois EPA for its Joliet facility. Interim status was granted for a storage facility, however it was closed under the authority and supervision of both Region V USEPA and the Illinois EPA, and interim status was formerly terminated. The location has since returned to small quantity generator status and has not generated any hazardous waste to this date.

As you requested in your letter, the certification statement is being returned unsigned, as it is not applicable at this location. If there are any additional questions, please refer them to Mr. David Booth at our Environmental Affairs Department at (318) 491-3157.

Very truly yours,

M. S. Davenport
Plant Manager

flw
Attach.

cc: D. R. Booth
V. M. Norwood
M. F. Scopac

ORD 2826

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO THE ATTENTION OF:

5HS-JCK-13

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

U.S. EPA ID #: ILD049809379

OLIN CORP
P O BOX 2219
JOLIET IL 60434

RE: Hazardous Waste Permit Application

Dear Permit Applicant:

As you know, you have previously submitted Part A of the Resource Conservation and Recovery Act (RCRA) permit application for the above-referenced facility. Timely submission of "the Part A" has allowed most hazardous waste management facilities to continue to operate under RCRA "interim status"(or the State program equivalent), while complying with applicable technical and record-keeping standards.

On November 8, 1984, the Hazardous and Solid Waste Amendments of 1984 (the 1984 Amendments) were enacted to modify RCRA. Under the 1984 Amendments, all RCRA permits issued after the date of enactment must provide for corrective action for all releases of hazardous waste or hazardous waste constituents from any solid waste management unit, regardless of the time at which waste was placed in the unit. In addition, all interim status facilities are subject to corrective action requirements, regardless of whether they have 1) submitted a Part B application, 2) submitted a closure plan, 3) reverted to generator status only, 4) actually closed, or 5) none of these. Unless our Agency has formally terminated the facility's interim status, the corrective action requirements apply. Please note that both hazardous and non-hazardous waste can meet the definition of solid waste under 40 CFR 261.2 (or the State regulation equivalent).

We must determine whether releases of hazardous waste or hazardous waste constituents have ever occurred at the facility site. If they have, we must ensure that corrective actions either have been taken or will be taken to eliminate threats to public health or the environment. An important element in our decision process is the information that you provide on the enclosed certification statement. Please read it carefully and either sign it and return it, or return it unsigned with a cover letter of explanation, within 45 days of the date of this letter. At some point in time, public input will be sought to either confirm or deny information you provide, or information we gather on our own, concerning releases and corrective actions.

Please mail your response to the following:

RCRA Activities
Region V
P. O. Box A3587
Attention: ATKJG
Chicago, Illinois 60690

Sincerely yours,

David A. Stringham
Chief, Solid Waste Branch

Enclosure

OLIN JOLIET PLANT
ILD049809379
SEPT. 1980
XX's on photo identify site of
Hazardous Waste Storage Facilities

Olin CHEMICALS

JOLIET PLANT P.O. BOX 2219, JOLIET, ILLINOIS 60434-2219

815—727-4901 312—242-2284

March 28, 1984

CERTIFIED MAIL
Mr. Larry Eastep
Manager Permit Section
Land Pollution Control
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, Illinois 62706

Re: ILD049809379 G,TSD,PA,9
RCRA Part A Withdrawl
Storage Facility Closure

Dear Mr. Eastep:

The Olin Corporation's Joliet Facility qualifies for the small Quantity Generators status as defined in 40 CFR Part 261.5. A request was originally made of Region V USEPA in our letter of January 23, 1984 (see attachment A) to have the RCRA Part A permit application withdrawn. In their letter of February 29, 1984 (see attachment B) Region V requested additional information and a closure plan for the storage area.

We have been informed that your agency is now handling facility closures under 40 CFR 265 Subpart G and are submitting the requested information and closure plan under cover of this letter. This closure plan meets the requirements of 40 CFR 265 Subpart G and will provide for an environmentally safe closure of this small storage facility.

Please note that there were two storage facilities originally identified in the Part A application on page "1 of 5" and again on page "5 of 5" on EPA Form 3510-3 (6-80). The storage tank (SO2) listed on line 2 was never constructed and was deleted from the application by Mr. Peter Tong USEPA Region V on July 1, 1981. Therefore, no closure actions are necessary for this tank.

We believe you will find everything in order. If you have any questions or clarification is required, please contact Mr. A. L. Feldman at (815) 727-4901, ext. 283.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Very truly yours,

M. S. Davenport

M. S. Davenport
Plant Manager

cc: CERTIFIED MAIL
Mr. William W. Miner, Chief
Technical, Permits, and Compliance Section
United States Environmental Protection Agency
Region V
230 South Dearborn Street
Chicago, IL 60604

RCRA Storage Area Closure Plan

ILD 049 809 379

General: This Storage Area is a RCRA facility under interim status (see Attachment C). It is also permitted by the Illinois Environmental Protection Agency Solid Waste Division -- Permit No. 1982-7-OP (see Attachment D).

The location of the storage facility may be seen on pages 5, 6, and 7 of the Part A Application (Attachment E). A diagram of the storage area is at Attachment F and a photograph of the facility is at Attachment G.

During the life of this facility only two containers of hazardous wastes were stored. One contained "Material Contaminated with Mercury" (D009) while the other was a lab pack with a varied content of shelf chemicals (a complete inventory is listed as Attachment H). The drums were packages elsewhere and then transferred to the storage area. All wastes are contained within multiple layers of sealed containers. Weekly inspections have revealed no leaks or other discharges to the storage area. The containers have never been opened in the storage area. Therefore the storage area has never been exposed to the contents of the containers. Additionally, rainwater from the sump has been analyzed for mercury and cyanide and no significant levels were found (see Attachment I). Therefore, the storage area has not been contaminated by hazardous waste and the action required to properly close it will reflect this.

Closure Actions:

1. Wastes have not been received at the RCRA Storage Facility since March 16, 1984 and will no longer be received.
2. All hazardous wastes will be transported to a properly permitted RCRA Disposal Facility off-site by October 31, 1984.
3. As discussed in the above section, no decontamination of the facility is needed.
4. The closure actions as described herein will be certified by an independent Registered Professional Engineer and an independent report will be filed with the Agency by December 29, 1984.

5. A final report will be submitted to the Illinois Environmental Protection Agency by Olin by December 29, 1984 certifying that the closure is complete.

Summary: The actions described in this plan will provide for the environmentally safe closure of the RCRA Storage Facility.

List of Attachments

A. Olin's Letter Dated January 23, 1984

B. USEPA Letter Dated February 29, 1984

C. USEPA Grant of Interim Status

D. State Permit

E. RCRA Part A Application and Amendments

F. Storage Area Diagram

G. Photo of Storage Area

H. Inventory of Lab Pack

I. Water Analyses

ATTACHMENT A

Olin's Letter Dated January 23, 1984

Olin CHEMICALS

JOLIET PLANT P.O. BOX 2219, JOLIET, ILLINOIS 60434-2219

815-727-4901 312-242-2284

January 23, 1984

CERTIFIED MAIL

Mr. Karl J. Klepitech, Jr.
Chief Waste Management Branch
RCRA Activities
Region V - USEPA
P. O. Box A3587
Chicago, Illinois 60690-3587

Attn: 5HW-13

Re: Request For Information - Hazardous Waste Permit
U.S. EPA ID No.: ILD 049 809 379

Dear Mr. Klepitech:

Pursuant to and in response to your letter of January 9, 1984, Olin Corporation Joliet Plant (ID No.: ILD 049 809 379) is withdrawing its RCRA permit application as the facility qualifies for the Small Quantity Generators Exclusion as now defined in 40 CFR Part 261.5.

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Very truly yours,

M. S. Davenport

M. S. Davenport
Plant Manager

cjp
e3

ATTACHMENT B

USEPA Letter Dated February 29, 1984

ATTACHMENT C

USEPA Grant of Interim Status

ATTACHMENT D

State Permit

Illinois Environmental Protection Agency · 2200 Churchill Road, Springfield, IL 62706

217/782-6760

Refer to: 19704510 -- Will County -- Joliet/Olin
Permit No. 1982-7-OP

June 18, 1982

Olin Corporation
120 Long Ridge Road
Stamford, Connecticut 06904

Olin Corporation - Joliet Plant
M.S. Davenport, Plant Manager
Post Office Box 2219
Joliet, Illinois 60634

Gentlemen:

Permit is hereby granted to Olin Corporation and M.S. Davenport, plant manager, as owner and operator, to operate a waste management facility consisting of 0.015 acres in the N.W. 1/4, S.W. 1/4, N.W. 1/4 of Section 29, Township 35 North, Range 10 East, 3rd P.M. and more specifically described in the application to store special waste all in accordance with the application prepared by Edward J. Kostra, P.E.; said application consisting of twenty-one pages, one quadrangle map and two plan sheets, all dated January 28, 1982 and received by the Agency February 1, 1982, application for operating permit consisting of one page, dated May 5, 1982.

This permit is subject to the standard conditions set forth on page 3, attached hereto and incorporated herein by reference, and further subject to the following special conditions:

1. This facility shall be developed and operated in accordance with Chapter 2, 3, 7 and 9 of the Illinois Pollution Control Board Rules and Regulations, and all permits issued pursuant to those Rules and Regulations.

2. Special wastes stored at the site for disposal, incineration or further treatment elsewhere shall be transported to the receiving facility utilizing the Agency's supplemental permit system and manifest system.

3. This permit is subject to review and modification by the Agency as deemed necessary to fulfill the intent and purpose of the Environmental Protection Act, and all applicable environmental rules and regulations.

4. This permit is issued with the expressed understanding that no process discharge to Waters of the State or to a sanitary sewer will occur from these facilities. If such discharge occurs, additional or alternate facilities shall be provided. The construction of such additional or alternate facilities may not be started until a permit for their construction has been issued by the Agency.

5. Drums of flammable wastes and flammable materials shall be stored according to existing State Fire Prevention Regulations.

6. This permit allows for the operation of a facility consisting of a 36' x 18' Hazardous Waste Storage Area to store the following special wastes:

   Spent solvents
   Asbestos
   Lab packs

7. Any modification to the facility, treatment process, types or amounts of wastes handled shall be the subject of an application for supplemental permit for site modification submitted to this Agency.

8. Permittee shall notify the Agency of any changes from the information submitted to the Agency in its application for a developmental and operating permit for this site. Permittee shall notify the Agency of any changes in the names or addresses of both beneficial and legal titleholders to the herein-permitted site. Such notification shall be made in writing within fifteen (15) days of such change and shall include the name or names of any parties in interest and the address of their place of abode; or, if a corporation, the name and address of its registered agent.

Very truly yours,

Thomas E. Cavanagh Jr.

Thomas E. Cavanagh, Jr., Manager
Permit Section
Division of Land Pollution Control

TEC:KEM:sc/4334c/27-28

cc: Northern Region
    Special Waste Unit

C.2 Compliance/ Enforcement

5HW-12

FEB 2 9 1984

Mr. M. S. Davenport
Plant Manager
Olin Corporation - Joliet Plant
P.O. Box 2219
Joliet, Illinois 60434-2219

Re: Request for Information
Hazardous Waste Permit
Review (Small Quantity Generator)
ILD 049809379

Dear Mr. Davenport:

We have reviewed your Part A hazardous waste permit application and your January 23, 1984, request to withdraw the application.

Based on the information you have submitted, your facility would appear to qualify for the small quantity generator exclusion under 40 CFR 261.5 because it generates less than 1000 kilograms of hazardous waste in any calendar month. However, your facility also generates certain wastes that are listed in 40 CFR 261.33(e) as having acute toxicity; in particular, sodium cyanide, potassium cyanide, and vanadium oxide. Such wastes remain subject to regulation under RCRA if generated in quantities greater than those specified below:

1. A total of one kilogram per month of any acutely hazardous waste listed in 40 CFR 261.33(e).

2. A total of 100 kilograms per month of any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any acutely hazdardous waste as noted in 40 CFR 261.5(e)(2).

Please determine the quantity of acutely hazardous wastes your facility generates in a calendar month, pursuant to 40 CFR 261.5(e). If you find that your waste is not regulated, please withdraw your permit application. Your written withdrawal request, with a detailed explanation, must be signed and certified by an authorized person in accordance with 40 CFR Part 270.11. If at any time, since November 19, 1980, your operation (1) did not qualify for the special requirements for generators of small quantities of hazardous wastes, and (2) included treatment, storage, or disposal of hazardous waste subject to 40 CFR Part 265, a closure plan must be filed with the withdrawal request. Requirements for closure are found at 40 CFR Part 265 Subpart G.

If your review indicates that a permit is required, but certain information on your application is incorrect, please submit a revised Part A permit application with the appropriate changes to this Regional Office. If no response is received in this office within 30 days, we will assume your facility requires a permit. Accordingly, we will continue to process your application.

Please contact Mrs. Juana Rojo of my staff, at (312) 886-1477, if you have any questions on this matter.

Sincerely yours,

William H. Miner, Chief
Technical, Permits, and Compliance Section

5HW:J.ROJO:ad 2/17/84 Disk #2

INITIALS	TYPIST	AUTHOR	S.U #1 CHIEF	STU #2 CHIEF	STU #3 CHIEF	TPS CHIEF	WMB CHIEF	WMD DIRECTOR
	D.S. 2/28/84					bjmm 2/29		
	A.D.	JER						
DATE	2-28-84	2-28-84	2/28/84			2/29/84		

Olin CHEMICALS

JOLIET PLANT P.O. BOX 2219, JOLIET, ILLINOIS 60434-2219

815—727-4901 312—242-2284

January 23, 1984

CERTIFIED MAIL

Mr. Karl J. Klepitech, Jr.
Chief Waste Management Branch
RCRA Activities
Region V - USEPA
P. O. Box A3587
Chicago, Illinois 60690-3587

Attn: 5HW-13

Re: Request For Information - Hazardous Waste Permit
U.S. EPA ID No.: ILD 049 809 379 G, TSD 9

Dear Mr. Klepitech:

Pursuant to and in response to your letter of January 9, 1984, Olin Corporation Joliet Plant (ID No.: ILD 049 809 379) is withdrawing its RCRA permit application as the facility qualifies for the Small Quantity Generators Exclusion as now defined in 40 CFR Part 261.5.

I certify under penalty of law that this document was prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, is to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Very truly yours,

M. S. Davenport

M. S. Davenport
Plant Manager

cjp
e3

Orig: Feder
cc: Meren HW

Olin CHEMICALS GROUP

120 LONG RIDGE ROAD, STAMFORD, CT 06904

ILD049809379

WILLIAM A. OPPOLD

Senior Vice President
Manufacturing and Engineering

July 28, 1983

Mr. Mike Mauzy, Director
Illinois Environmental Protection Agency
2200 Churchill Road
Springfield, IL 62706

Mr. Valdas V. Adamkus
Regional Administrator
Region V
U. S. Environmental Protection Agency
230 South Dearborn
Chicago, IL 60604

Re: Olin Corporation
Joliet, Illinois
USEPA I.D. No. ILD049809379
NPDES Permit No. IL0002020

Dear Sirs:

Pursuant to the requirements of the NPDES and RCRA Permitting Programs (40 CFR 122.22 and 40 CFR 270.11, "Signatories to permit applications and reports"), all reports required by permits and other information requested by the Director under NPDES and RCRA regulations, and Illinois Hazardous Waste Rules and Water Pollution Control Rules, including but not limited to Discharge Monitoring Reports and Annual Reports, are hereby authorized to be signed by the Plant Manager of the above-referenced facility.

Sincerely,

W. A. Oppold

WAO/DRV/vrp

cc: M. S. Davenport, Joliet, IL
V. M. Norwood, Charleston, TN
M. B. Sokolowski, Stamford, CT

UNITED STATES
ENVIRONMENTAL PROTECTION AGENCY
REGION V
230 SOUTH DEARBORN ST.
CHICAGO, ILLINOIS 60604

REPLY TO ATTENTION OF:

5HW-12

FEB 2 9 1983

Mr. M. S. Davenport
Plant Manager
Olin Corporation - Joliet Plant
P.O. Box 2219
Joliet, Illinois 60434-2219

Re: Request for Information
Hazardous Waste Permit
Review (Small Quantity Generator)
ILD 049809379

Dear Mr. Davenport:

We have reviewed your Part A hazardous waste permit application and your January 23, 1984, request to withdraw the application.

Based on the information you have submitted, your facility would appear to qualify for the small quantity generator exclusion under 40 CFR 261.5 because it generates less than 1000 kilograms of hazardous waste in any calendar month. However, your facility also generates certain wastes that are listed in 40 CFR 261.33(e) as having acute toxicity; in particular, sodium cyanide, potassium cyanide, and vanadium oxide. Such wastes remain subject to regulation under RCRA if generated in quantities greater than those specified below:

1. A total of one kilogram per month of any acutely hazardous waste listed in 40 CFR 261.33(e).

2. A total of 100 kilograms per month of any residue or contaminated soil, water or other debris resulting from the cleanup of a spill, into or on any land or water, of any acutely hazdardous waste as noted in 40 CFR 261.5(e)(2).

Please determine the quantity of acutely hazardous wastes your facility generates in a calendar month, pursuant to 40 CFR 261.5(e). If you find that your waste is not regulated, please withdraw your permit application. Your written withdrawal request, with a detailed explanation, must be signed and certified by an authorized person in accordance with 40 CFR Part 270.11. If at any time, since November 19, 1980, your operation (1) did not qualify for the special requirements for generators of small quantities of hazardous wastes, and (2) included treatment, storage, or disposal of hazardous waste subject to 40 CFR Part 265, a closure plan must be filed with the withdrawal request. Requirements for closure are found at 40 CFR Part 265 Subpart G.

Please print or type in the unshaded areas only
(fill—in areas are spaced for elite type, i.e., 12 characters/inch).

Form Approved OMB No. 158-S80004 285

FORM 3 RCRA — EPA

U.S. ENVIRONMENTAL PROTECTION AGENCY

HAZARDOUS WASTE PERMIT APPLICATION

Consolidated Permits Program

(This information is required under Section 3005 of RCRA.)

I. EPA I.D. NUMBER

S: F I L D 0 4 9 8 0 9 3 7 9 T/A: 3 C: 1

FOR OFFICIAL USE ONLY

APPLICATION APPROVED	DATE RECEIVED (yr., mo., & day)	COMMENTS

II. FIRST OR REVISED APPLICATION

Place an "X" in the appropriate box in A or B below *(mark one box only)* to indicate whether this is the first application you are submitting for your facility or a revised application. If this is your first application and you already know your facility's EPA I.D. Number, or if this is a revised application, enter your facility's EPA I.D. Number in Item I above.

A. FIRST APPLICATION *(place an "X" below and provide the appropriate date)*

[X] 1. EXISTING FACILITY *(See instructions for definition of "existing" facility. Complete item below.)*

FOR EXISTING FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR THE DATE CONSTRUCTION COMMENCED *(use the boxes to the left)*: C 8 | YR. 26 | MO. 01 | DAY 01

[ ] 2. NEW FACILITY *(Complete item below.)*

FOR NEW FACILITIES, PROVIDE THE DATE *(yr., mo., & day)* OPERATION BEGAN OR IS EXPECTED TO BEGIN: YR. | MO. | DAY

B. REVISED APPLICATION *(place an "X" below and complete Item I above)*

[ ] 1. FACILITY HAS INTERIM STATUS

[ ] 2. FACILITY HAS A RCRA PERMIT

III. PROCESSES – CODES AND DESIGN CAPACITIES

A. PROCESS CODE – Enter the code from the list of process codes below that best describes each process to be used at the facility. Ten lines are provided for entering codes. If more lines are needed, enter the code(s) in the space provided. If a process will be used that is not included in the list of codes below, then describe the process *(including its design capacity)* in the space provided on the form *(Item III-C)*.

B. PROCESS DESIGN CAPACITY – For each code entered in column A enter the capacity of the process.

1. AMOUNT – Enter the amount.
2. UNIT OF MEASURE – For each amount entered in column B(1), enter the code from the list of unit measure codes below that describes the unit of measure used. Only the units of measure that are listed below should be used.

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Storage:		
CONTAINER *(barrel, drum, etc.)*	S01	GALLONS OR LITERS
TANK	S02	GALLONS OR LITERS
WASTE PILE	S03	CUBIC YARDS OR CUBIC METERS
SURFACE IMPOUNDMENT	S04	GALLONS OR LITERS
Disposal:		
INJECTION WELL	D79	GALLONS OR LITERS
LANDFILL	D80	ACRE-FEET *(the volume that would cover one acre to a depth of one foot)* OR HECTARE-METER
LAND APPLICATION	D81	ACRES OR HECTARES
OCEAN DISPOSAL	D82	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	D83	GALLONS OR LITERS

PROCESS	PROCESS CODE	APPROPRIATE UNITS OF MEASURE FOR PROCESS DESIGN CAPACITY
Treatment:		
TANK	T01	GALLONS PER DAY OR LITERS PER DAY
SURFACE IMPOUNDMENT	T02	GALLONS PER DAY OR LITERS PER DAY
INCINERATOR	T03	TONS PER HOUR OR METRIC TONS PER HOUR; GALLONS PER HOUR OR LITERS PER HOUR
OTHER *(Use for physical, chemical, thermal or biological treatment processes not occurring in tanks, surface impoundments or incinerators. Describe the processes in the space provided; Item III-C.)*	T04	GALLONS PER DAY OR LITERS PER DAY

UNIT OF MEASURE	UNIT OF MEASURE CODE
GALLONS	G
LITERS	L
CUBIC YARDS	Y
CUBIC METERS	C
GALLONS PER DAY	U
LITERS PER DAY	V
TONS PER HOUR	D
METRIC TONS PER HOUR	W
GALLONS PER HOUR	E
LITERS PER HOUR	H
ACRE-FEET	A
HECTARE-METER	F
ACRES	B
HECTARES	Q

EXAMPLE FOR COMPLETING ITEM III *(shown in line numbers X-1 and X-2 below)*: A facility has two storage tanks, one tank can hold 200 gallons and the other can hold 400 gallons. The facility also has an incinerator that can burn up to 20 gallons per hour.

S: C DUP T/A: 3 C: 1

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT (specify)	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
X-1	S02	600	G	
X-2	T03	20	E	
1	S01	55000	G	
2	S02	5000	G	
3				
4				

LINE NUMBER	A. PROCESS CODE (from list above)	B. PROCESS DESIGN CAPACITY 1. AMOUNT	B. PROCESS DESIGN CAPACITY 2. UNIT OF MEASURE (enter code)	FOR OFFICIAL USE ONLY
5				
6				
7				
8				
9				
10				

NOV 19 1980

Continued from the front.

III. PROCESSES *(continued)*

C. SPACE FOR ADDITIONAL PROCESS CODES OR FOR DESCRIBING OTHER PROCESSES *(code "T04")*. FOR EACH PROCESS ENTERED HERE INCLUDE DESIGN CAPACITY.

IV. DESCRIPTION OF HAZARDOUS WASTES

A. EPA HAZARDOUS WASTE NUMBER – Enter the four–digit number from 40 CFR, Subpart D for each listed hazardous waste you will handle. If you handle hazardous wastes which are not listed in 40 CFR, Subpart D, enter the four–digit number*(s)* from 40 CFR, Subpart C that describes the characteristics and/or the toxic contaminants of those hazardous wastes.

B. ESTIMATED ANNUAL QUANTITY – For each **listed waste** entered in column A estimate the quantity of that waste that will be handled on an annual basis. For each **characteristic** or **toxic contaminant** entered in column A estimate the total annual quantity of all the non–listed waste*(s)* that will be handled which possess that characteristic or contaminant.

C. UNIT OF MEASURE – For each quantity entered in column B enter the unit of measure code. Units of measure which must be used and the appropriate codes are:

ENGLISH UNIT OF MEASURE	CODE	METRIC UNIT OF MEASURE	CODE
POUNDS	P	KILOGRAMS	K
TONS	T	METRIC TONS	M

If facility records use any other unit of measure for quantity, the units of measure must be converted into one of the required units of measure taking into account the appropriate density or specific gravity of the waste.

D. PROCESSES

1. PROCESS CODES:
   For listed hazardous waste: For each **listed** hazardous waste entered in column A select the code*(s)* from the list of process codes contained in Item III to indicate how the waste will be stored, treated, and/or disposed of at the facility.
   For non–listed hazardous wastes: For each characteristic or toxic contaminant entered in column A, select the code*(s)* from the list of process codes contained in Item III to indicate **all** the processes that will be used to store, treat, and/or dispose of all the non–listed hazardous wastes that possess that characteristic or toxic contaminant.
   Note: Four spaces are provided for entering process codes. If more are needed: (1) Enter the first three as described above; (2) Enter "000" in the extreme right box of Item IV-D(1); and (3) Enter in the space provided on page 4, the line number and the additional code*(s)*.
2. PROCESS DESCRIPTION: If a code is not listed for a process that will be used, describe the process in the space provided on the form.

NOTE: HAZARDOUS WASTES DESCRIBED BY MORE THAN ONE EPA HAZARDOUS WASTE NUMBER – Hazardous wastes that can be described by more than one EPA Hazardous Waste Number shall be described on the form as follows:

1. Select one of the EPA Hazardous Waste Numbers and enter it in column A. On the same line complete columns B,C, and D by estimating the total annual quantity of the waste and describing all the processes to be used to treat, store, and/or dispose of the waste.
2. In column A of the next line enter the other EPA Hazardous Waste Number that can be used to describe the waste. In column D(2) on that line enter "included with above" and make no other entries on that line.
3. Repeat step 2 for each other EPA Hazardous Waste Number that can be used to describe the hazardous waste.

EXAMPLE FOR COMPLETING ITEM IV *(shown in line numbers X-1, X-2, X-3, and X-4 below)* – A facility will treat and dispose of an estimated 900 pounds per year of chrome shavings from leather tanning and finishing operation. In addition, the facility will treat and dispose of three non–listed wastes. Two wastes are corrosive only and there will be an estimated 200 pounds per year of each waste. The other waste is corrosive and ignitable and there will be an estimated 100 pounds per year of that waste. Treatment will be in an incinerator and disposal will be in a landfill.

LINE NO.	A. EPA HAZARD. WASTE NO. *(enter code)*	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE *(enter code)*	D. PROCESSES 1. PROCESS CODES *(enter)*	D. PROCESSES 2. PROCESS DESCRIPTION *(if a code is not entered in D(1))*
X-1	K 0 5 4	900	P	T 0 3 D 8 0	
X-2	D 0 0 2	400	P	T 0 3 D 8 0	
X-3	D 0 0 1	100	P	T 0 3 D 8 0	
X-4	D 0 0 2				included with above

Continued from page 2.
NOTE: Photocopy this page before completing if you have more than 26 wastes to list.

Form Approved OMB No. 158-S80004

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EPA I.D. NUMBER (enter from page 1): W I L D 0 4 9 8 0 9 3 7 9 T/A 3 C 1

FOR OFFICIAL USE ONLY: W DUP T/A 3 C 2 DUP

IV. DESCRIPTION OF HAZARDOUS WASTES (continued)

LINE NO.	A. EPA HAZARD. WASTE NO. (enter code)	B. ESTIMATED ANNUAL QUANTITY OF WASTE	C. UNIT OF MEASURE (enter code)	D. PROCESSES 1. PROCESS CODES (enter)	D. PROCESSES 2. PROCESS DESCRIPTION (if a code is not entered in D(1))
1	F002	70 000	P	S01	
2	F003	50 000	P	S01	
3	F005	50 000	P	S01	
4	U239	0*			* See Item 4 next page
5	U002	0*			
6	U133	0* delete please			
7	U154	0*			
8	U196	0*			
9	U013	50 000	P	S01	
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					
23					
24					
25					
26					

Continued from the front.

IV. DESCRIPTION OF HAZARDOUS WASTE (continued)

E. USE THIS SPACE TO LIST ADDITIONAL PROCESS CODES FROM ITEM D(1) ON PAGE 3.

*No waste is normally generated. However material is handled as a commercial product which is listed under 40 CFR 261.33, and may become a hazardous waste if it is either spilled or becomes off specification.

EPA I.D. NO. (enter from page 1)

F I L D 0 4 9 8 0 9 3 7 9 T/A 3 6

V. FACILITY DRAWING

All **existing** facilities must include in the space provided on page 5 a scale drawing of the facility *(see instructions for more detail).* F6: A/55

VI. PHOTOGRAPHS

All existing facilities must include photographs *(aerial or ground–level)* that clearly delineate all existing structures; existing storage, treatment and disposal areas; and sites of future storage, treatment or disposal areas *(see instructions for more detail).* F6: A/56

VII. FACILITY GEOGRAPHIC LOCATION

LATITUDE (degrees, minutes, & seconds)	LONGITUDE (degrees, minutes, & seconds)
41 28 45 N	088 07 00 W

VIII. FACILITY OWNER

☒ A. If the facility owner is also the facility operator as listed in Section VIII on Form 1, "General Information", place an "X" in the box to the left and skip to Section IX below.

B. If the facility owner is not the facility operator as listed in Section VIII on Form 1, complete the following items:

1. NAME OF FACILITY'S LEGAL OWNER	2. PHONE NO. (area code & no.)
E	

3. STREET OR P.O. BOX	4. CITY OR TOWN	5. ST.	6. ZIP CODE
F	G		

IX. OWNER CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED
W. A. OPPOLD, Sr. Vice President Manufacturing & Engineering		11/18/80

X. OPERATOR CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

A. NAME (print or type)	B. SIGNATURE	C. DATE SIGNED

Form Approved OMB No. 158-S80004

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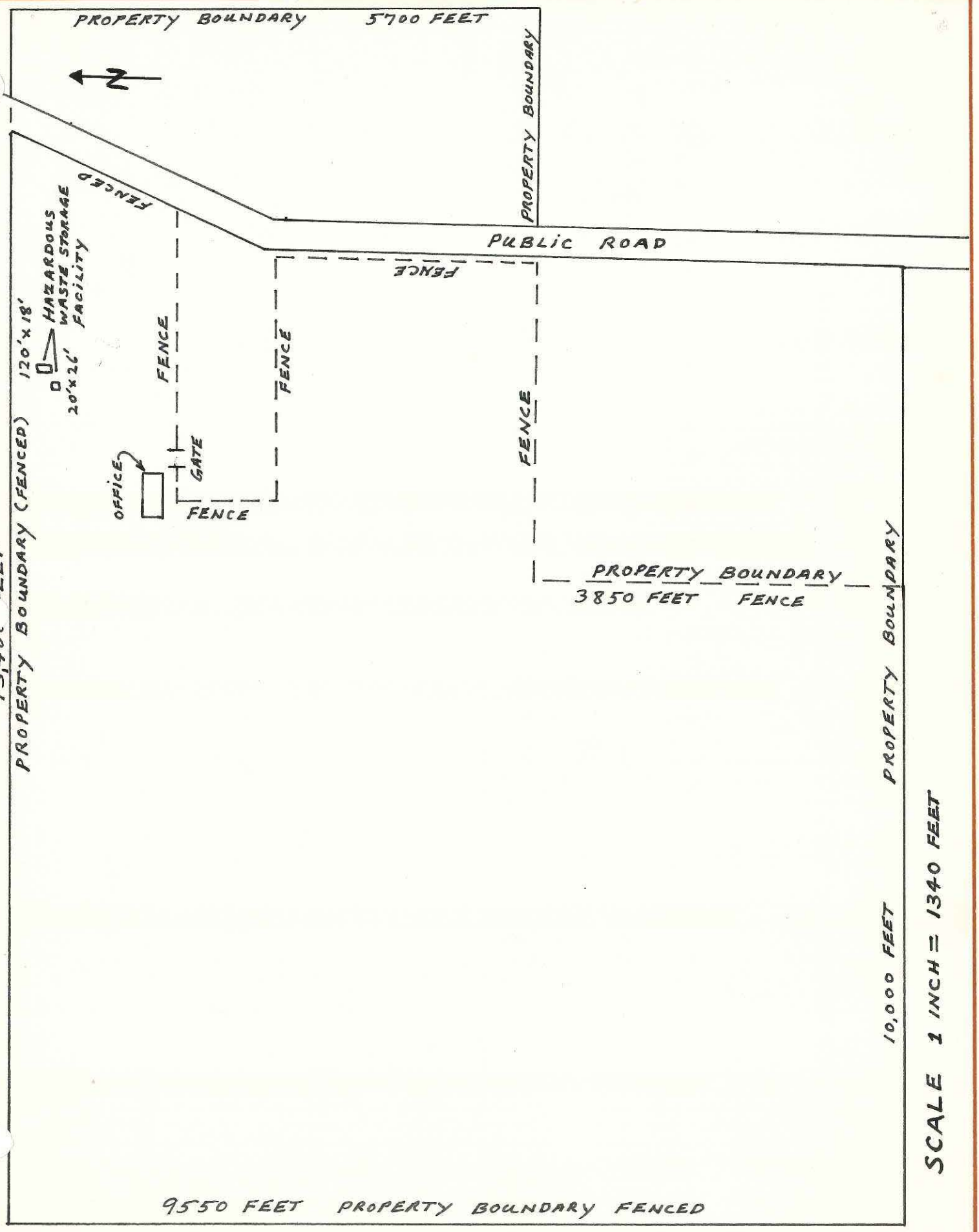
V. FACILITY DRAWING *(see page 4)*



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Olin CHEMICALS GROUP
120 LONG RIDGE ROAD, STAMFORD, CT 06904

WILLIAM A. OPPOLD
Senior Vice President
Manufacturing and Engineering

November 17, 1980

U.S. Environmental Protection Agency
Region V
RCRA Activities
P.O. Box 7861
Chicago, Illinois 60680

Gentlemen:

RE: Hazardous Waste Permit Application
Olin Corporation - Joliet Plant
EPA I.D. No. ILD 049809379

Enclosed please find RCRA Permit Application (Forms 1 and 3) for Olin's Joliet, Illinois Plant. This is being submitted in compliance with 40 CFR 122.22(a)(1), which, in conjunction with 40 CFR 261, requires submittal by November 19, 1980.

Should you have any questions regarding either the application or information contained therein, please contact us directly.

Sincerely yours,

William A. Oppold

/jp
Enclosures

Olin CHEMICALS

JOLIET PLANT P.O. BOX 2219, JOLIET, ILLINOIS 60434-2219

815—727-4901 312—242-2284

September 22, 1983

U. S. Environmental Protection Agency
Region V
RCRA Activities
230 South Dearborn Street
Chicago, IL. 60606

ILD 049 809 379 PA, G, TSD

Re: RCRA Part A Hazardous Waste Permit Application
Revision for Olin Corporation Joliet, Illinois Plant
EPA ID Number ILD049809379

Gentlemen:

Enclosed herein are revised portions of the RCRA Part A Hazardous Waste Permit Application for Olin's Joliet, Illinois facility. The revision updates the list of hazardous waste generated at the facility (see Form 3, Part IV, "Description of Hazardous Waste").

If you have any questions with regard to this submission, please contact Mr. Arnold L. Feldman at (815) 727-4901.

Very truly yours,

W. A. Oppold

WAO/gh
Enclosure

RECEIVED
OCT 04 1983
WASTE MANAGEMENT
BRANCH

RECEIVED
10/04/83

Region V Site No: ILD049802399

Miner

HAZARDOUS WASTE REFERRAL

RCRA

Contacts

Ralph Feeney R
Compliance Section

DiDomenico
Engineering Section

Small
Legal Section

Already cleared
No Action
from previous
1st Record of Inspect
Please take a close
look

Site Name: Olin Chemicals

Site Location: P.O. Box 130
Joliet, Illinois 60434

Owner/Operator: Morris Davenport: Operator

Permitted Site:

Permit Number & Issue Date (if applicable):

Apparent Violations:

1) Facility's contingency plan lacking a list of all emergency equipment at the facility - 265.52(e)
2) Contingency plan lacking evacuation plan - 265.52(f)
3) Personnel training records did not include job titles, descriptions of training or records of training for each position at the facility related to hazardous waste - 265.16(d)

4) The facility did not have a formal written inspection schedule - 265.15(b)(1)

5) The facility did not have ~~this~~ an inspection log or summary of malfunctions, operator errors, discharges, safety and emergency equipment monitorings, security devices and operating and structural devices - 265.15(d)

List Supporting Documentation
(MOR's, Letters, Reports, Phone Memos, Field Surveys, Photographs, etc.)

EPA site inspection 11/19/80

List Previous violations and subsequent action taken:

Compliance Section Recommendations:

Refer for ~~Enforc~~ Compliance Order.

Olin CHEMICALS

JOLIET PLANT P. O. BOX 130, JOLIET, ILLINOIS 60434

815—727-4901 312—242-2284

March 27, 1981

CERTIFIED MAIL

U.S. Environmental Protection Agency
Enforcement Division
230 South Dearborn
Chicago, IL 60604

Attn: Water and Hazardous Material
Compliance Section - 5EWHME

Dear Sirs:

We are in receipt of your Notice of Violation (NOV) letter of March 11, 1981 signed by Kenneth A. Fenner, Chief, Water and Hazardous Materials Enforcement Branch, relating to an inspection of Olin's Joliet, Illinois Plant made by EPA on November 19, 1980.

Before answering your specific questions, we would like to put in perspective the hazardous waste situation at the Joliet Plant on November 19, 1980, the first effective date of the RCRA regulations and the day of your inspection. Our Hazardous Waste Permit Application (EPA I.D. 049809379) described two Hazardous Waste Storage Facilities. We expect to generate 170 pounds per year of generic hazardous waste (solvents) and 50 pounds per year of waste asbestos. It is also possible that hazardous wastes may be generated from the spillage of listed commercial products used at the plant. At the time of the inspection there was no hazardous waste stored at the Hazardous Waste Storage Facilities, as noted by the inspectors in their report.

We will now respond to each area of concern identified in your letter of March 11, 1981:

1. "The facility did not have a formal written inspection schedule as required by 40 CFR Part 265.15(b)(1)."

   On November 19, 1980, no hazardous waste was stored in the facility, thus, there was no immediate practical need for the plant to schedule an inspection. General safety and emergency equipment has been and continues to be inspected on a monthly basis as required by OSHA. Since the time of the EPA inspection,

a specific written schedule for inspecting the appropriate safety, structural, emergency monitoring, and operating equipment and security devices for RCRA purposes has been drafted to incorporate existing plant inspection practices.

2. "The facility did not have an inspection log or summary of malfunctions, operator errors, discharges, safety and emergency equipment monitoring, security devices and operating and structural devices as required by 40 CFR Part 265.15(d)."

   Again, on November 19, 1980, there was no waste in the hazardous waste storage facilities. Thus, there was nothing to inspect or record in an inspection log. An inspection log has since been prepared to record and summarize inspections.

3. "Personnel training records did not include job title, descriptions of training or records of training for each position at the facility related to hazardous waste as required by 40 CFR 265.16(d)."

   At the time of the inspection, the hazardous waste storage facilities were the responsibility of the Manager, Environmental Affairs at the Joliet Plant who has the responsibility for overall compliance of the plant and the facility with applicable environmental regulations. A written description of this position was available at the plant, but apparently was not shown to the inspectors.

   Additional responsibilities relating to the hazardous waste storage areas are being considered. A written list of any new assignments will be made and a description of these added responsibilities will be included in the individuals' job descriptions as these new assignments are made. A written description of the type and amount of training to be given to personnel that are associated with the hazardous waste storage area has been prepared and fulfillment of this training will be duly recorded.

4. "The facility's contingency plan lacked a list of all emergency equipment at the facility as required by 40 CFR 265.52 (e)."

   On November 19, 1980, the plant's contingency plan did include a list of all emergency equipment at the plant site. Since no hazardous waste was present and only a small amount of hazardous waste was expected to be generated, this emergency equipment consisted of the nearby safety shower and plant fire hydrant and the plant emergency truck. The capabilities of this equipment in relationship to the possible emergency do not require written explanation.

5. "The facility's contingency plan lacked an evacuation plan as required by 40 CFR 265.52(f)."

   At the time of the inspection, the plant's contingency plan did contain an evacuation plan. We believe that this plan is adequate considering the location of the hazardous waste storage facilities in open areas away from buildings and plant personnel and given the small amount and type of hazardous waste expected to be stored.

If you have any further questions regarding this matter, please contact Mr. Arnold Feldman, Manager, Environmental Affairs at (815) 727-4901, extension 241.

Very truly yours,

Maurice S. Davenport
Plant Manager

MSD:gh

CC: CERTIFIED MAIL

John S. Moore
Director
Land/Noise Pollution Control Division
Illinois Environmental Protection Agency

5EWHME

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

11 MAR 1981

Morris Davenport, Operator
Olin Chemicals
Post Office Box 130
Joliet, Illinois 60434

RE: NOV Olin Chemicals, Joliet, Ill.
ILD049890399

Dear Mr. Davenport:

Notice is hereby given that the United States Environmental Protection Agency (U.S. EPA) has determined that the above facility is in violation of requirements of Subtitle C of the Resource Conservation and Recovery Act (RCRA) as amended by the Quiet Communities Act of 1978. Specifically, it has been determined that Olin Chemicals, is in violation of Section 3004 of RCRA (42 USC 6924) and regulations 40 C.F.R. Parts 265.15(b)(1), 265.15(d), 265.16(d), 265.52(e) and 265.52(f).

On November 19, 1980, representatives of the Illinois Environmental Protection Agency (IEPA) and the U.S. EPA conducted an inspection of Olin Chemicals. During this inspection the following violations were observed:

1) The facility did not have a formal written inspection schedule as required by 40 C.F.R. Part 265.15(b)(1).

2) The facility did not have an inspection log or summary of malfunctions, operator errors, discharges, safety and emergency equipment monitoring, security devices and operating and structural devices as required by 40 C.F.R. Part 265.15(d).

3) Personnel training records did not include job title, descriptions of training or records of training for each position at the facility related to hazardous waste as required by 40 C.F.R. Part 265.16(d).

4) The facility's Contingency Plan lacked a list of all emergency equipment at the facility as required by 40 C.F.R. 265.52(e).

5) The facility's Contingency Plan lacked an evacuation plan as required by 40 C.F.R. 265.52(f).

You are hereby requested to provide documentation to this office, within 15 days after receipt of this Notice of Violation, informing us of action taken to correct these deficiencies. Failure to do so may result in further

enforcement action being initiated by this office. Please address such documentation to U. S. Environmental Protection Agency, Enforcement Division, Attention: Water and Hazardous Materials Compliance Section, 230 South Dearborn, Chicago, Illinois 60604. If you have any questions, please contact Mr. Ralph Feeney of my staff at (312) 353-2114.

Very truly yours,

Kenneth A. Fenner
Chief, Water & Hazardous Materials
Enforcement Branch

cc: John S. Moore, Director
Land/Noise Pollution Control Division
Illinois Environmental Protection Agency

bcc: Brad Benning
Illinois Environmental Protection Agency

Constantelos/Klepitsch
Stone
Leder
Baumgartner/Lewis
Feeney

RFEENEY/PB 03-09-81 6-6700
Feeney RF 3/9/81
Baumgartner
Bowman
Leder
Gromnicki 3/10
Fenner

19 DEC 1980

5EWHME

Morris Davenport, Operator
Olin Chemicals
Post Office Box 130
Joliet, Illinois 60434

RE: Olin Chemicals, Joliet, Illinois
ILD049809399

Dear Mr. Davenport:

Representatives of the United States Environmental Protection Agency (U.S. EPA) inspected your facility on November 19, 1980. This report is forwarded for your information.

If you have any questions concerning this inspection report, please contact Mr. Ralph Feeney of the Water & Hazardous Materials Compliance Section at (312) 353-2114.

Very truly yours,

Original Signed by: Arnold E. Leder

Arnold E. Leder
Chief, Compliance Section
Water & Hazardous Materials
Enforcement Branch

Enclosure

cc: Michael P. Mauzy, Director
Illinois Environmental Protection Agency

bcc: Brad Benning
Illinois Environmental Protection Agency
Constantelos
Cho
Feeney

AELEDER/pb 12-19-80 6-6700

ILD 049809379
EPA IDENTIFICATION NUMBER

RCRA INSPECTION REPORT - INTERIM STATUS STANDARDS
TREATMENT, STORAGE, AND DISPOSAL FACILITIES
Form 1 - General Facility Standards

I. General Information:

(A) Facility Name: Olin Chemicals

(B) Street: P.O. Box 130

(C) City: Joliet (D) State: Illinois (E) Zip Code: 60434

(F) Phone: 815 727-4901 (G) County: Will

(H) Operator: Morris Davenport

(I) Street: P.O. Box 130

(J) City: Joliet (K) State: Illinois (L) Zip Code: 60434

(M) Phone: 815 727-4901 (N) County: Will

(O) Owner: Olin Corporation

(P) Street: 120 Long Ridge Road

(Q) City: Stanford (R) State: Connecticut (S) Zip Code: 06904

(T) Phone: 203 356-2000 (U) County: Fairfield

(V) Type of Ownership: ___ Federal ___ Municipal X Private ___ State ___ County

(W) Date of Inspection: 11/19/80 (Q) Time of Inspection (From) 10:45 am (To) ___

(X) Weather Conditions: Sunny, cold

(Y) Person(s) Interviewed	Title	Telephone
Donald E. Morgan	Manager, Production	815 727-4901

(Z) Inspection Participants	Title	Telephone
Eugene Meyer	Chemist	886-6147
Anthony Kolodka	Envir. Engineer	353-2110
Erin Moran	Physical Scientist	886-6254
BRAD Benning	Env. Prot. Spec.	345-9780

II. Description of Site Activity

(A) X Generator (Form 2)

(B) ____ Transporter (Form 3)

(C) ____ Chemical, Physical and Biological Treatment (Form 4)

(D) X Storage (Form 5)

(E) ____ Landfill (Form 6)

(F) ____ Incineration (Form 7)

(G) ____ Land Treatment (Form 4)

(H) ____ Thermal Treatment (Form 7)

(I) Comments: _____

Supplemental forms (Listed in Parathesis) must be completed for each activity inspected. Attach all Supplemental forms to this report.

	Yes	No	Not Inspected	See Remark Number
(J) Has this facility Submitted a Part A Permit Application?	X			

	Yes	N	Not Inspected	See Remark Number
2. Are copies of the Contingency Plan available at site and local Emergency Organizations?	X			
3. Emergency Coordinator				
a. Is the Facility Emergency Coordinator Identified?	X			
b. Is Coordinator Familiar with all aspects of site operation and Emergency Procedures?	X			
c. Does the Emergency Coordinator have the authority to carry out the Contingency Plan?	X			
4. Emergency Procedures				
If an Emergency Situation has occurred at this facility; has the Emergency Coordinator followed the Emergency Procedures listed in §256.56?				X

V. RECORDKEEPING

(A) Are Manifests, Annual Reports, Exception Reports, and All Test Results and Analyses Retained for at least three years?				

VI. INTERNATIONAL SHIPMENTS

(A) Has the Installation Imported or Exported Hazardous Waste?		X		
(If A was answered Yes, then complete one or both of the following)				
1. Exporting Hazardous waste, has a generator:				
a. Notified the Administrator in writing?				
b. Obtained the Signature of the foreign consignee confirming delivery of the waste(s) in the foreign country?				

	Yes	No	Not Inspected	See Remark Number
c. Met the Manifest requirements?				
2. Importing Hazardous Waste, has the generator:				
a. Met the manifest requirements?				

VII. PREPARER INFORMATION

Name: Eugene Meyer

Title: Chemist

Phone Number: 886-6147

REMARKS:

	Yes	No	Not Inspected	See Remark Number
5. If hazardous wastes accumulate on site, does the generator follow the following general facility standards?				
Do Personnel training records include:				
1. Job Titles?				2
2. Description of Training?				2
3. Records of Training?				2
Is Personnel Training Completed within the Requried Time Frame?				2
B. Prepardness and Prevention				
1. Maintenance and Operation of Facility:				
a. Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent?				
2. Does the Facility have the following equipment?				
a. Alarm system?	X			
b. Telephone or 2-Way Radios?	X			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment?	X			

Indicate the volume of water and/or foam available for fire control

Units: 300,000 gal

3. Testing and Maintenance of Emergency Equipment:				
a. Has the Owner or Operator established testing and Maintenance Procedures for Emergency Equipment	X			
b. Is emergency equipment Maintained in Operable Condition?	X			

	Yes	No	Not Inspected	See Remark Number
4. Has Owner/Operator Provided Immediate Access to Internal Alarms (if needed)?	X			
5. Is there adequate Aisle Space for unobstructed Movement?				
6. Are arrangements with local authorities included in the operating record?	X			
(C) Contingency Plan and Emergency Procedure				
1. Does the contingency plan contain the following:				
a. The actions facility personnel must take to comply with §264.51 and 261.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part)	X			
b. Arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37?	X			
c. Names, addresses, and Phone numbers (office and Home) of all persons qualified to act as emergency coordinator.	X			
d. A list of all emergency equipment at the facility which include the location and physical description of each item on the list, and a brief outline of its capabilities?		X		
e. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes and alternate evacuation routes.		X		

III. MANIFEST

	Yes	No	Not Inspected	See Remark Number
(A) Are copies of the Manifest available?	X			
(B) Does the Manifest contain the following information:				
1. Manifest document number?	X			
2. Name, mailing address, telephone number, and EPA ID Number of Generator?	X			
3. Name and EPA ID Number of Transporter(s)?	X			
4. Name, Address, and EPA ID Number of Designated permitted facility and alternate facility?	X			
5. The description of the waste(s) (DOT shipping name, DOT hazard class, DOT identification number)?	X			
6. The total quantity of waste(s) and the type and number of containers loaded?	X			
7. Required Certification?	X			
8. Required Signatures?	X			
(C) Does the Owner or Operator Submit Exception Reports when Needed?	X			

IV. PRE-TRANSPORT REQUIREMENTS

(A) Is Generator Packaging waste in accordance with DOT Regulations?				
(B) Are waste packages marked and labeled in accordance with DOT Regulations concerning hazardous waste materials?				
(C) If required, are placards available to transporter?				

	Yes	No	Not Inspected	See Remark Number
(D) Pre-shipment Accumulation:				
1. Are containers marked with start of accumulation date?				
2. Are the containers of hazardous waste removed from installation before they can accumulate for more than 90 days?				
3. Are wastes stored in containers managed in accordance with 40 CFR Part 265.174 and 265.176 (weekly inspections of containers, containers holding ignitable or reactive wastes located at least 15 meters (50 Feet) from facility's property line?				
4. Are wastes stored in tanks managed according to the following:				
a. Are tanks used to store only those wastes which will not cause corrosion leakage or premature failure of the tank?				
b. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, or dikes or other containment structures?				
c. Do continuous feed systems have a waste-feed cutoff?				
d. Are required daily and weekly inspections done?				
e. Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? (If waste is rendered non-reactive or non-ignitable, see treatment requi em nts?				
f. Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR §265.17(b) apply)				

ILD049809379
EPA IDENTIFICATION NUMBER

RCRA INSPECTION REPORT - INTERIM STATUS STANDARDS
Form 2 - Generator Inspection

I. General Information:

(A) Installation Name: Olin Chemicals

(B) Street: P.O. Box 130

(C) City: Joliet (D) State: Illinois (E) Zip Code: 60434

(F) Phone: 815 727-4901 (G) County: Will

(H) Operator: Morris Davenport

(I) Street: P.O. Box 130

(J) City: Joliet (K) State: Illinois (L) Zip Code: 60434

(M) Phone: 815 727-4901 (N) County: Will

(O) Owner: Olin Corporation

(P) Street: 120 Long Ridge Road

(Q) City: Stanford (R) State: Connecticut (S) Zip Code: 06904

(T) Phone: 203 356-2000 (U) County: Fairfield

(V) Type of Ownership: ____ Federal ____ Municipal X Private ____ State ____ County

(W) Date of Inspection: 11/19/80 Time of Inspection (From) 10:45 am (To) _____

(X) Weather Conditions: Sunny, cold

(Y) Person(s) Interviewed	Title	Telephone
Donald E. Morgan	Manager, Production	815 727-4901

(Z) Inspection Participants	Title	Telephone
Eugene Meyer	Chemist	886-6147
Anthony Holuska	Envir. Engineer	353-2110
Erin Moran	Physical Scientist	886-6254
Brad Benning	Env. Prot. Spec.	345-9780

II. OTHER TYPE OF HAZARDOUS WASTE ACTIVITY

(A) ____ Transporter (Form 3)

(B) ____ Chemical, Physical and Biological Treatment (Form 4)

(C) X Storage (Form 5)

(D) ____ Landfill (Form 6)

(E) ____ Incineration (Form 7)

(F) ____ Thermal Treatment (Form 7)

(G) Comments: _____

Supplemental forms (Listed in Parathesis) must be completed for each activity inspected. Attach all Supplemental forms to this report.

I. GENERAL FACILITY STANDARDS

	Yes	No	Not Inspected	See Remark Number
(A) Has the Regional Administrator been notified regarding:				
1. Receipt of hazardous waste from a foreign source?		X		
2. Transfer of Ownership?		X		
(B) General Waste Analysis:				
1. Has the owner or operator obtained a detailed chemical and physical analysis of the waste?				1
2. Does the owner or operator have a detailed waste analysis plan on file at the facility?				1
3. Does the waste analysis plan specify procedures for inspection and analysis of each movement of hazardous waste from off-site?				1
(C) Security - Do security measures include:				
1. 24-Hour Surveillance?	X			
2. Artificial or Natural Barrier Around Facility?	X			
3. Controlled Entry?	X			
4. Danger Sign(s) at Entrance?	X			
(D) Do Owner or Operator Inspections Include:				
1. Records of Malfunctions?				4
2. Records of Operator Error?				4
3. Records of Discharges?				4
4. Inspection Schedule?				4
5. Safety, Emergency Equipment?				4
6. Security Devices?				4
7. Operating and Structural Devices?				4
8. Inspection Log?				4

III. GENERAL FACILITY STANDARDS - Continued

	Yes	No	Not Inspected	See Remark Number
(E) Do Personnel Training Records Include:				
1. Job Titles?		X		2
2. Description of Training?				2
3. Records of Training?				2
Is Personnel Training Completed within the Required Time Frame?				2
(F) Are the Following Special Requirements for Ignitable, Reactive, or Incompatible Wastes Addressed?				
1. Special Handling?		X		3
2. No Smoking Signs?		X		3
3. Separation and Confinement?		X		3

IV. PREPAREDNESS AND PREVENTION

	Yes	No	Not Inspected	See Remark Number
(A) Maintenance and Operation of Facility:				
1. Is there any evidence of fire, Explosion, or release of hazardous waste or hazardous waste constituent?		X		
(B) Does the Facility have the Following Equipment:				
1. Alarm System?	X			
2. Telephone or 2-Way Radios?	X			
3. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment?	X			

Indicate the volume of water ~~and/or foam~~ available for fire control;

Units: Overhead fire tank whose volume is 300,000 gal

	Yes	N	Not Inspected	See Remark Number
4. Has Owner/Operator Provided Immediate Access to Internal Alarms (if needed)?	X			
5. Is there adequate Aisle Space for unobstructed Movement?				
6. Are arrangements with local authorities included in the operating record?	X			

(C) Contingency Plan and Emergency Procedure 265 Subp D

1. Does the contingency plan contain the following:

a. The actions facility personnel must take to comply with §264.51 and 264.56 in response to fires, explosions, or any unplanned release of hazardous waste? (If the owner has a Spill Prevention, Control and Countermeasures (SPCC) Plan, he needs only to amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this Part)	X			
b. Arrangements agreed to by local police departments, fire departments, hospitals, contractors, and State and local emergency response teams to coordinate emergency services, pursuant to §264.37?	X			
c. Names, addresses, and Phone numbers (office and Home) of all persons qualified to act as emergency coordinator.	X			
d. A list of all emergency equipment at the facility which include the location and physical description of each item on the list, and a brief outline of its capabilities?		X		
e. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary? (This plan must describe signal(s) to be used to begin evacuation, evacuation routes and alternate evacuation routes.		X		

	Yes	No	Not Inspected	See Remark Number
5. If hazardous wastes accumulate on site, does the generator follow the following general facility standards?				
A. Do Personnel training records include:				
1. Job Titles?				2
2. Description of Training?				2
3. Records of Training?				2
Is Personnel Training Completed within the Requried Time Frame?				2
B. Prepardness and Prevention 265 Subpart C				
1. Maintenance and Operation of Facility:				
a. Is there any evidence of fire, explosion, or release of hazardous waste or hazardous waste constituent?		X		
2. Does the Facility have the following equipment?				
a. Alarm system?	X			
b. Telephone or 2-Way Radios?	X			
c. Portable fire extinguishers, fire control, spill control equipment and decontamination equipment?	X			

Indicate the volume of water ~~and/or foam~~ available for fire control

Units: 300,000 gal

3. Testing and Maintenance of Emergency Equipment:				
a. Has the Owner or Operator established testing and Maintenance Procedures for Emergency Equipment	X			
b. Is emergency equipment Maintained in Operable Condition?	X			

VII. MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

	Yes	No	Not Inspected	See Remark Number
(A) Use of Manifest System				
1. Does the facility follow the procedures listed in §265.71 for processing each Manifest?	X			
2. Are records of past shipments retained for 3 years?	X			
(B) Does the owner or operator meet requirements regarding Manifest Discrepancies?	X			
(C) Operating Record				
Does the facility maintain an operating record at the site as required in §265.73?	X			
(D) Availability, Retention and Disposition of Records				
Are all records available at the site for inspection as required in §265.74?	X			

VIII. CLOSURE AND POST CLOSURE

	Yes	No	Not Inspected	See Remark Number
(A) Closure and Post Closure				
1. Closure Plan Available for Inspection by May 19, 1981?				
2. Has this plan been submitted to the Regional Administrator?				
3. Has Closure begun?				
4. Is closure cost estimate available by May 19, 1981?				
(B) Post Closure Care and Use of Property - Has the Owner or Operator supplied a Post Closure Monitoring Plan (by May 19, 1981)?				

11/6/80

ILD 049809379
EPA IDENTIFICATION NUMBER

RCRA INSPECTION REPORT - INTERIM STATUS STANDARDS
SUPPLEMENTAL FORM 5 FOR STORAGE FACILITY INSPECTIONS

I. General Information

(A) Facility Name: Olin Chemicals

(B) Street: P.O. Box 130

(C) City: Joliet (D) State: Illinois (E) ZIP Code 60434

(F) Date of Inspection: 11/19/80

II. Storage Facility Standards (Part 265)

A. Facilities which store containers of hazardous waste (Subpart I)

	YES	NO	NOT INSPECTED	REMARK #
1. Are containers in good condition?	X			
2. Are containers compatible with waste in them?	X			
3. Are containers stored closed?	X			
4. Are containers managed to prevent leaks?	X			
5. Are containers inspected weekly for leaks and defects?	X			
6. Are ignitable & reactive wastes stored at least 15 meters (50 feet) from the facility property line?				
7. Are incompatible wastes stored in separate containers? (If not, the provisions of 40 CFR 265.17(b) apply.)				
8. Are containers of incompatible wastes separated or protected from each other physical barriers or sufficient distance?				

B. Facilities which store hazardous waste in tanks (Subpart J) No

1. Are tanks used to store only those wastes which will not cause corrosion, leakage or premature failure of the tank?				
2. Do uncovered tanks have at least 60 cm (2 feet) of freeboard, or dikes or other containment structures?				

Continued on next page

	YES	NO	NOT IN-SPECTED	REMARK #
3. Do continuous feed systems have a waste-feed cutoff?				
4. Are waste analyses done before the tanks are used to store a substantially different waste than before?				
5. Are required daily and weekly inspections done?				
6. Are reactive & ignitable wastes in tanks protected or rendered non-reactive or non-ignitable? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				
7. Are incompatible wastes stored in separate tanks? (If not, the provisions of 40 CFR 265.17(b) apply.)				
C. Facilities which store hazardous waste in surface impoundments (Subpart K)				
1. Do surface impoundments have at least 60 cm (2 feet) of freeboard?	X			
2. Do earthen dikes have protective cover?	X			
3. Are waste analyses done when the impoundment is used to store a substantially different waste than before?				
4. Is the freeboard level inspected at least daily?	X			
5. Are the dikes inspected weekly for evidence of leaks or deterioration?	X			
6. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a surface impoundment? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				
7. Are incompatible wastes stored in different impoundments? (If not, the provisions of 40 CFR 265.17(b) apply.)				
D. Facilities which store hazardous waste in waste piles (Subpart L)				
1. Are waste piles covered or protected from the wind?				
2. Is each in-coming movement of waste analyzed before being added to the waste pile?				
3. Are leachate, run-off, and run-on controlled? (The effective date of this provision is Nov. 19, 1980.)				
4. Are reactive & ignitable wastes rendered non-reactive or non-ignitable before storage in a pile? (If waste is rendered non-reactive or non-ignitable, see treatment requirements.)				

Continued on next page

	YES	NO	NOT IN-SPECTED	REMARK #
5. Are piles of reactive or ignitable waste protected?				
6. Are incompatible wastes stored in different piles? (If not, the provisions of 40 CFR 265.17(b) apply.)				
7. Are piles of incompatible waste protected by barriers or distance from other waste?				

Notes:

1. No waste on site at this time.

2. Not yet instituted.

3. No incompatible, reactive, or ignitable waste on hand.

4. Inspections are performed but are currently not formally incorporated in an inspection plan.

DATE: February 19, 1981

SUBJECT: Report of ISS inspection on 11/19/80

FROM: Eugene Meyer

TO: Jay S. Goldstein, Chief
Hazardous Waste Management Section

Company: Olin Chemical Company, P.O. Box 130, Joliet, Illinois

Participants: Tony Holoska, Erin Moran, Brad Benning (IEPA)

Objective: To review the facility for compliance with the hazardous waste regulations

Site description:

Chemical company

Other information:

The contingency plan is missing some details (evacuation plan and list of emergency equipment); an inspection plan is non-existent; training of employees not yet institutionalized.

Conclusions & recommendations

Letter should be sent from Enforcement Division for non-compliance.

NP

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

DRE-8J

JUL 1 1996

Olin Chemicals
Patterson and Laraway Roads
Joliet, Illinois 60434

Re: New Federal Regulations on the
Import/Export of Hazardous Waste
Olin Chemicals
ILD 049 809 379

Dear Sir/Madame:

I have enclosed a photo copy of the April 12, 1996, FEDERAL REGISTER, "Imports and Exports of Hazardous Waste: Implementation of OECD Council Decision, Final Rule." By July 11, 1996, persons involved in importing/exporting hazardous waste must be in compliance with the regulations published in the enclosed requirements which address the control of transfrontier movements of waste destined for recovery operations. These new requirements, promulgated under the authority of the Resource Conservation and Recovery Act as amended (RCRA), apply in all States, irrespective of States' RCRA authorization status.

If you have any questions regarding this Final Rule please contact the RCRA Hot Line 1-800-424-9346 or TDD 1-800-553-7272 (for the hearing impaired). In addition, selected supporting materials are available on the Internet. The April 12, 1996, FEDERAL REGISTER has instructions to access the information electronically.

Sincerely yours,

Uylaine E McMahan

Uylaine E. McMahan
Compliance Assistance Program Manager
Enforcement and Compliance Assurance Branch
Waste, Pesticides and Toxics Division

Enclosure

D. Corrective Action

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

FH

REPLY TO THE ATTENTION OF:

Ms. Vicki J. Ray
Olin Corporation
P.O. Box 248
Lower River Road
Charleston, Tennessee 37310

Re: Visual Site Inspection
Olin Corp. - Joliet Plant
ILD049809379

December 18, 1992

Dear Vicki:

The United States Environmental Protection Agency (U.S. EPA) Region V will conduct a Preliminary Assessment including a Visual Site Inspection (PA/VSI) at the referenced facility. This inspection is conducted pursuant to the Resource Conservation and Recovery Act, as amended (RCRA) Section 3007 and the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA) Section 104(e). The referenced facility has generated, treated, stored, or disposed of hazardous waste subject to RCRA. The PA/VSI (requires identification and systematic review of all solid waste streams at the facility). The objective of the PA/VSI is to determine whether or not releases of hazardous wastes or hazardous constituents have occurred or are occurring at the facility which may require further investigation. This analysis will also provide information to establish priorities for addressing any confirmed releases.

The visual site inspection of your facility is to verify the location of all solid waste management units (SWMUs) and areas of concern (AOCs) and to make a cursory determination of their condition by visual observation. The definitions of SWMUs and AOCs are included in Attachment I. The VSI supplements and updates data gathered during a preliminary file review. During this site inspection, no samples will be taken. A sampling visit to ascertain if releases of hazardous waste or constituents have occurred may be required at a later date.

Assistance of some of your personnel may be required in reviewing solid waste flow(s) or previous disposal practices. The site inspection is to provide a technical understanding of the present and past waste flows and handling, treatment, storage, and disposal practices. Photographs of the facility are necessary to document the condition of units at the facility and the waste management practices used.

The VSI has been scheduled for January 21 beginning at 8:00 am. The inspection team will consist of Jeff Miller and Kristen Solberg representing Metcalf and Eddy, a contractor for the U.S. EPA.

Representatives of the Illinois Environmental Protection Agency may also be present. Your cooperation in admitting and assisting them while on site is appreciated.

The U.S. EPA recommends that personnel who are familiar with present and past manufacturing and waste management activities be available during the VSI. Access to any relevant maps, diagrams, hydrogeologic reports, environmental assessment reports, sampling data sheets, manifests and/or correspondence is also necessary as such information is needed to complete the PA/VSI. Enclosed as Attachment II is a summary of our current knowledge and data gaps.

If you have any questions, please contact me at (312) 886-4448 or Francene Harris at (312) 886-2884. A copy of the Preliminary Assessment/Visual Site Inspection Report, excluding the conclusions and Executive Summary portion will be sent when the report is available.

Sincerely yours,

Kenneth S. Bardo

for Kevin M. Pierard, Chief
Technical Enforcement Section

Enclosures

cc: IEPA
file

ATTACHMENT I

The definitions of SWMU and AOC are defined as follows:

A SWMU is defined as any discernable unit where solid wastes have been placed at any time from which hazardous constituents might migrate, regardless of whether the unit was intended for the management of a solid or hazardous waste.

The SWMU definition includes the following:

- RCRA regulated units, such as container storage areas, tanks, surface impoundments, waste piles, land treatment units, landfills, incinerators, and underground injections wells.
- Closed and abandoned units.
- Recycling units, wastewater treatment units, and other units that EPA has generally exempted from standards applicable to hazardous waste management units.
- Areas contaminated by routine and systematic releases of wastes or hazardous constituents, such as wood preservative treatment dripping areas, loading or unloading areas, or solvent washing areas.

An AOC is defined as any area where a release to the environment of hazardous wastes or constituents has occurred or is suspected to have occurred on a non-routine or non-systematic basis. This includes any area where such a release in the future is judged to be a strong possibility.

ATTACHMENT II

Olin Corporation - Joliet Plant
Patterson & Laraway Roads
Joliet, Illinois 60434

PROBABLE SOLID WASTE MANAGEMENT UNITS (SWMUs) AND AREAS OF CONCERN (AOCs).

1. The following SWMUs and AOCs were identified during the preliminary file review. No specific location on-site for these SWMUs is mentioned in the files. There is mention of two buildings noted here and the use of an abandoned cooling tower foundation:

   SWMU #1: Waste Oil Storage Area

   SWMU #2: Waste Drum Storage

   SWMU #3: Lab Pack Storage Area

   SWMU #4: PCB Storage Area

   SWMU #5: PCB Transformers

   SWMU #6: Spent Solvents Storage Area

   SWMU #7: Baghouse Bags

   SWMU #8: Hazardous Waste Storage Building #1 - 120' x 18'

   SWMU #9: Hazardous Waste Storage Building #2 - 20' x 26'

   AOC #1: 6 Ponds for Storm Water Runoff

   AOC #2: Sodium Phosphate Ponds

   AOC #3: Clean Solvent Storage Area.

   AOC #4: Sewage Treatment Sludge

If possible, please provide complete information for the waste unit in response to the questions below. For better time efficiency, please respond to this request by January 15 and address the response to:

Jeff Miller
Metcalf & Eddy
6666 E. 75th St., Suite 500-I
Indianapolis, Indiana 46250

From the list of probable SWMUs and AOCs please address the following questions:

- Do the above SWMUs still exist at the facility and are they in operation?

- What are the start-up and closure dates of the above SWMUs?

- What types of wastes are the SWMUs currently/formerly used for?

- Name any SWMUs at your facility that have not been listed above. These would include hazardous waste storage areas, treatment units, or any other area or system at your facility dealing with hazardous waste including satellite accumulation areas.

- What are the average volumes and rates of generation of waste streams?

- Document any releases that have occurred at the facility. This includes spills or leaks of both wastes and raw product. Outline the action taken to clean up the release.

2. Please supply as much information as possible concerning the site history. This would include any information you have regarding operations and any other owner/operators at this location.

3. Please provide a description of the primary processes taking place at your facility and the waste streams which are generated.

4. Describe the methods of treatment and disposal of generated waste utilized by your facility.

If available, the following items are requested:

- A detailed map of the facility showing the location of the SWMUs and the production stations.

- Flow diagrams showing waste streams and waste management practices.

- Copies of any permits currently held by the facility.

- SARA Title III Information and a copy of the facility contingency plan.

U.S. ENVIRONMENTAL PROTECTION AGENCY

TECHNICAL ENFORCEMENT SUPPORT

AT

HAZARDOUS WASTE SITES

TES X

CONTRACT NO. 68-W9-0007
WORK ASSIGNMENT NO. R05068

FINAL PRELIMINARY ASSESSMENT/ VISUAL SITE INSPECTION REPORT

FOR

OLIN CORPORATION JOLIET PLANT
EPA ID#: ILD049809379

IN

JOLIET, ILLINOIS

U.S. EPA REGION V

METCALF & EDDY
PROJECT NO. 153068

WORK PERFORMED BY:

METCALF & EDDY, INC.
208 SOUTH LASALLE
SUITE 1733
CHICAGO, IL 60604

AUGUST 2, 1993

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EXECUTIVE SUMMARY

Under the Technical Enforcement Support (TES X) Contract, Metcalf & Eddy was tasked by the U. S. EPA to conduct preliminary assessments and visual site inspections (PA/VSIs) at various RCRA facilities to determine and evaluate the existence and likelihood of releases from solid waste management units (SWMUs) and/or areas of concern (AOCs). This report summarizes the results of a PA/VSI performed at the Olin Corporation facility in Joliet, Illinois (ILD049809379) and assesses the potential for releases of hazardous wastes or constituents from SWMUs and/or AOCs.

The facility is located at the intersection of Patterson and Laraway Roads south of Joliet, Illinois. The facility was founded in 1926 by John Block for the manufacture of trisodium phosphate which was the first synthetic product used as a cleaning agent in place of soap. Olin was the largest one location industrial sodium phosphate producer and the only domestic producer of industrial phosphates to use the "Wet Process". This process incorporated the use of acids in the production of industrial phosphates. The plant was initially owned and operated by the Block brothers and incorporated in 1928 as the Blockson Chemical Company. In 1955, Blockson Works merged with Mathieson Alkali Company that later became known as Olin Mathieson Chemical Corporation and then Olin Corporation.

Olin Corporation is in the process of transferring ownership of the plant to Texasgulf, Inc. and Albright and Wilson Americas. The plant has been inactive since June 1991 when ownership transfer activities began. Transfer of ownership is expected to be completed by 1995. Until the transfer is finalized, Olin has requested and received permission from the IEPA to temporarily close all SWMUs. All hazardous materials have been removed from the facility. Currently, plant activities are limited to the operation of the Storm Water Treatment Facility, mining of phosphates from the treatment ponds, and basic plant maintenance.

Site grounds cover 1,015 acres; 175 acres are occupied by manufacturing facilities. These facilities included approximately 20 buildings where raw materials were combined in the manufacturing of various industrial phosphates.

Olin is regulated under RCRA as a small quantity generator. Wastes were collected at various production areas inside the plant and transferred to storage areas where the waste was analyzed for hazardous constituents. Wastes included spent solvents, used oil, lab packs, baghouse bags, sanitary sewage treatment sludge, and PCBs. After waste analysis, containers were appropriately labelled and manifested off-site for proper disposal or reclamation.

Eleven SWMUs and twelve AOCs were identified during the PA/VSI and are listed as follows:

SWMU #1: Waste Oil Storage Area

SWMU #2: Empty Drum Storage
SWMU #3: Lab Pack Storage Area
SWMU #4: PCB Storage Area
SWMU #5: Spent Solvents Storage Area
SWMU #6: Baghouses and Bags
SWMU #7: Hazardous Waste Storage Pad #1
SWMU #8: Hazardous Waste Storage Pad #2
SWMU #9: Sanitary Sewage Treatment Facility & Sludge
SWMU #10: Sodium Phosphate Ponds
SWMU #11: Storm Water Treatment Facility
AOC #1: 3 Ponds for Storm Water Runoff
AOC #2: Clean Solvent Storage Area
AOC #3: Gypsum pile
AOC #4: Sodium Hydroxide Tanks
AOC #5: Phosphoric Acid Tanks
AOC #6: Fuel Oil Tank
AOC #7: Nitric Acid Tank
AOC #8: Muriatic Acid Tank
AOC #9: Sulfur Dioxide & Chlorine Cylinders
AOC #10: Chlorine Tank
AOC #11: Sulfuric Acid Tanks
AOC #12: Sodium Hypochlorite Tank

Of these SWMUs and AOCs, only SWMUs #10, #11, and AOCs #1, and #2 are still active. SWMUs #4, #7, #8, and AOC #3 are closed. The remaining SWMUs/AOCs are currently inactive.

The Olin facility is located in a mixed industrial and agricultural area. Commonwealth Edison maintains a power plant immediately north of the Olin facility and Chem Waste Management operates a hazardous waste landfill immediately south. Neighboring residences are adjacent to the south and east edges of the facility. Farmland adjoins the facility to the east and the Des Plaines River is on the west. A major rail line lies between the river and the facility. The facility is fenced with a 24-hour monitored gate. A phone and electronic control system are located at the gate. Other residences, industry, and agricultural land are located within a four mile radius of the facility. No odors have been reported by nearby residences.

One release of hazardous waste was documented at the Joliet facility. In 1983, a mercury spill of unknown quantity occurred at an unknown location at the facility. Spilled materials and contaminated clothing were double contained in steel drums and stored in a designated on-site hazardous waste storage area prior to off-site disposal.

Moderate potential exists for exposure of contaminants to on-site workers as a result of inadequate containment of phosphate dust throughout the facility.

The nearest surface water bodies in the vicinity of the facility are fresh water wetlands on-site and the Des Plaines River adjacent to the site on the west. Surface runoff from the facility is directed through three ponds on-site; the south pond,

north pond and west pond. The west pond handles all storm water runoff from the west side of the facility as well as water from the phosphate ponds and gypsum pile. All water directed to the west pond is processed through Olin's Storm Water Treatment Facility (SWTF) prior to discharge into the Des Plaines River. The south pond and north pond are connected by a drainage ditch and culvert. Storm water from the eastern edge of the facility flows from the south pond to the north pond which discharges to the Des Plaines River. Prior to discharge, the water is analyzed. If any contaminants are found in water contained in the north pond, the outfall is diverted to the west pond. Outfalls from the ponds and SWTF are permitted by NPDES permits.

The potential for a release to surface water via overland flow or groundwater recharge is low due to the following factors; 1) remaining hazardous wastes at the facility are enclosed in buildings, 2) all SWMUs are inactive with the exception of the SWTF and 3) outfalls from the SWTF and associated ponds are NPDES permitted.

Sensitive environments in the vicinity of the facility include on-site freshwater wetlands (larger than two acres), and sensitive habitat for endangered species. This includes habitats for the Bald Eagle adjacent to the facility and Indian Bat, Lakeside Daisy, and Prairie Clover within four miles of the facility.

Wells for nearby residences are adjacent to the facility on the south and within 1/4 mile to the east. These wells have an average depth of approximately 100 - 150 feet and are located in the shallow Silurian dolomite aquifer.

The threat for releases to occur in groundwater and soils from the facility is low due to the location of most SWMUs inside buildings on concrete floors. The potential for residents to come in contact with contaminants in groundwater from the facility is low. Groundwater flow is towards the river, away from nearby residences.

The threat of release to air is low due to the fact that remaining hazardous wastes are contaminants are within buildings.

To conclude, Metcalf and Eddy has determined that current operations and overall conditions at this facility pose a moderate threat to maintenance workers and and a low threat to air, surface water, soils and groundwater.

1.0 INTRODUCTION

Metcalf & Eddy (M&E) received Work Assignment No. R05068 from the U.S. Environmental Protection Agency (U.S. EPA), under Contract No. 68-W9-0007 (TES X), to conduct preliminary assessments and visual site inspections (PA/VSIs) at various RCRA facilities in Region V as part of the Environmental Priorities Initiative.

The Initiative combines CERCLA and RCRA programs in order to select and address RCRA facilities that are a high priority for corrective action using available CERCLA and RCRA authorities. The first step in prioritizing facilities is to conduct PA/VSIs. The PA consists of a preliminary review of existing state and federal file information in order to identify past and potential releases to the environment from solid waste management units (SWMUs) and/or areas of concern (AOCs). Information gathered during the PA include:

1. A list of SWMUs and AOCs at the facility.
2. Unit and waste characteristics of SWMUs and AOCs.
3. Site migration pathways.
4. Release history from SWMUs and AOCs.
5. Exposure potential to humans and the environment.
6. Data gaps.

The VSI entails an inspection of the entire facility, including interviews with state (or municipal) and facility representatives and photographs of all SWMUs and AOCs. Major factors considered in the VSI include:

1. The physical condition of SWMUs and AOCs.
2. The identification of SWMUs and AOCs not revealed in the PA.
3. Waste management practices.
4. Identification of release pathways and potential of release to each media.
5. Visual evidence of releases.

The VSI is also intended to uncover releases not identified in the PA, confirm the operational history of the facility, address existing data gaps and provide more information of release pathways and the environmental setting. If evidence of a release is observed at a facility, potential sampling points will be determined.

This report illustrates the results of the PA/VSI of the Olin Corporation Joliet (Olin) facility in Joliet, Illinois (ILD049809379).

Information was gathered from the Illinois Environmental Protection Agency (IEPA) and the U.S. EPA Region V files in order to conduct the PA. In addition, telephone interviews were conducted with Olin representatives. A walk-through inspection of the facility occurred on January 20, 1993. Eleven (11) SWMUs and twelve (12) AOCs were identified during the VSI. A VSI summary and field notes are provided in Appendices A and B respectively.

2.0 FACILITY DESCRIPTION

This section describes the facility location, past and present operations and ownership, waste streams, waste management practices, release history, regulatory history, environmental setting, and potential receptors.

2.1 FACILITY LOCATION

The OLIN facility is located at the intersection of Patterson and Laraway Roads south of Joliet, Illinois. The city of Joliet is situated in the west-central portion of Will County in northeastern Illinois. The site is located at a latitude of 41 28'45" N and a longitude of 88 7'00" W (see Figure 1: Facility Location Map.)

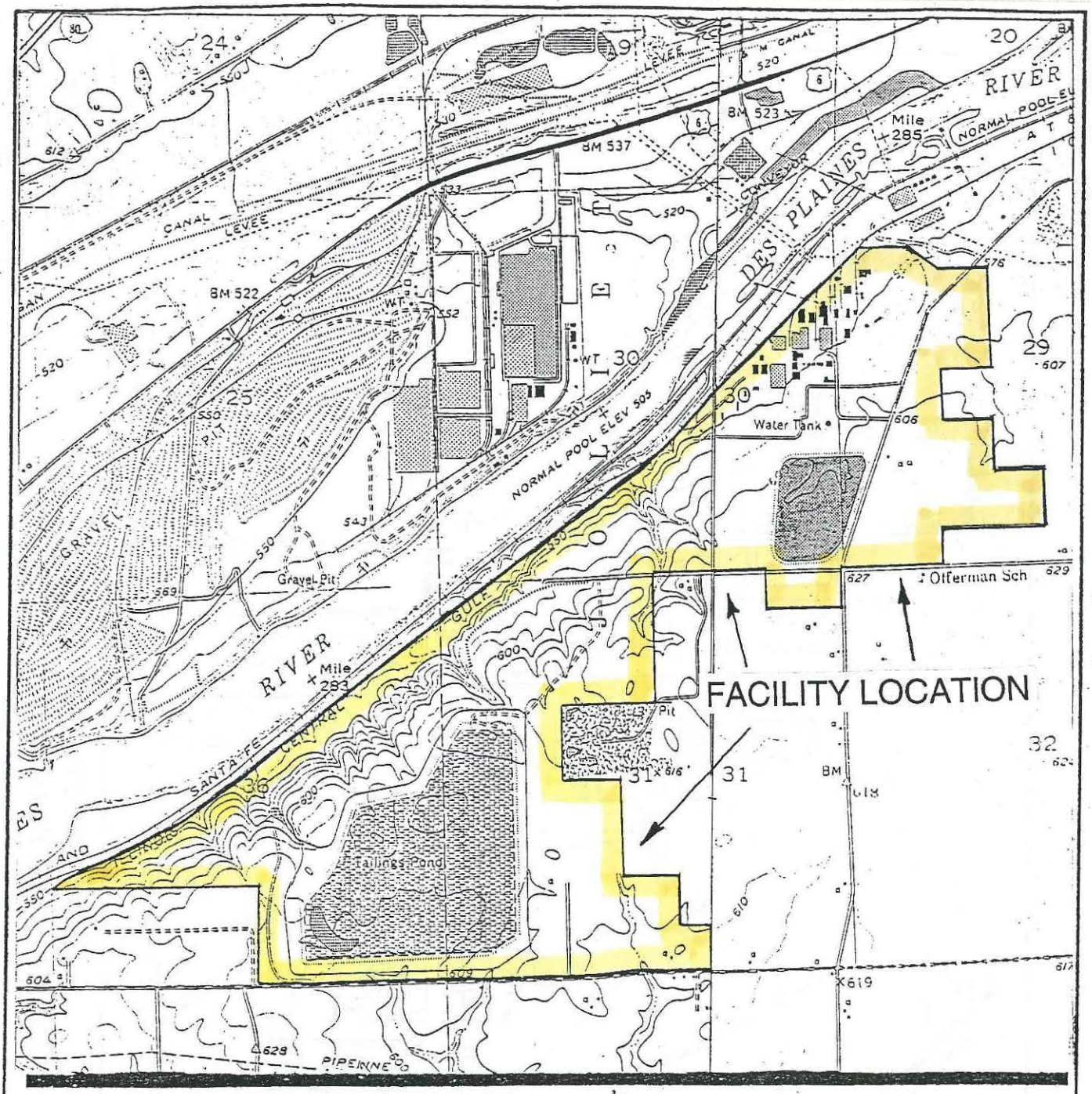
Site grounds cover 1,015 acres; 175 acres are occupied by manufacturing facilities. The facility consists of approximately 20 buildings where raw materials were combined in the manufacturing of various industrial phosphates (see Figure 2: Facility Building Layout).

2.2 FACILITY OWNERSHIP/OPERATION

The facility was founded in 1926 by John Block for the manufacture of trisodium phosphate which was the first synthetic product used as a cleaning agent in place of soap. The plant was initially owned and operated by the Block brothers and incorporated in 1928 as the Blockson Chemical Company. In 1955, Blockson Works merged with Mathieson Alkali Company that later became known as Olin Mathieson Chemical Corporation and then Olin Corporation.

Olin Corporation is in the process of transferring ownership of the plant to Texasgulf, Inc. and Albright and Wilson Americas. The plant has been inactive since June 1991 when ownership transfer activites began. Transfer of ownership is expected to be completed by 1995. Until the transfer is finalized, Olin has requested and received permission from the IEPA to temporarily close all SWMUs. All hazardous materials have been removed from the facility. Currently, plant activities are limited to the operation of the Storm Water Treatment Facility, mining of phosphates from the treatment ponds, and basic plant maintenance.

Olin was the largest one location industrial sodium phosphate producer and the only domestic producer of industrial phosphates to use the "Wet Process". This process incorporated the use of acids in the production of industrial phosphates for use in the production of soaps and other phosphate products.



SCALE 1:24 000

1 0 1 MILE

PLAINFIELD, ILL.

N4130—W8807.5/7.5

1962

PHOTOREVISED 1973 AND 1980

DMA 3367 II SW—SERIES V863

CHANNAHON, ILL.

NW/4 WILMINGTON 15' QUADRANGLE

N4122.5—W8807.5/7.5

PHOTOINSPECTED 1978

1954

PHOTOREVISED 1973

AMS 3366 I NW—SERIES V863

ILLINOIS

QUADRANGLE LOCATION

JOLIET, ILL.

SE/4 JOLIET 15' QUADRANGLE

41088-E1-TF-024

1962

PHOTOREVISED 1973

DMA 3367 II SE—SERIES V863

ELWOOD, ILL.

NE/4 WILMINGTON 15' QUADRANGLE

N4122.5—W8800/7.5

1953

PHOTOREVISED 1973

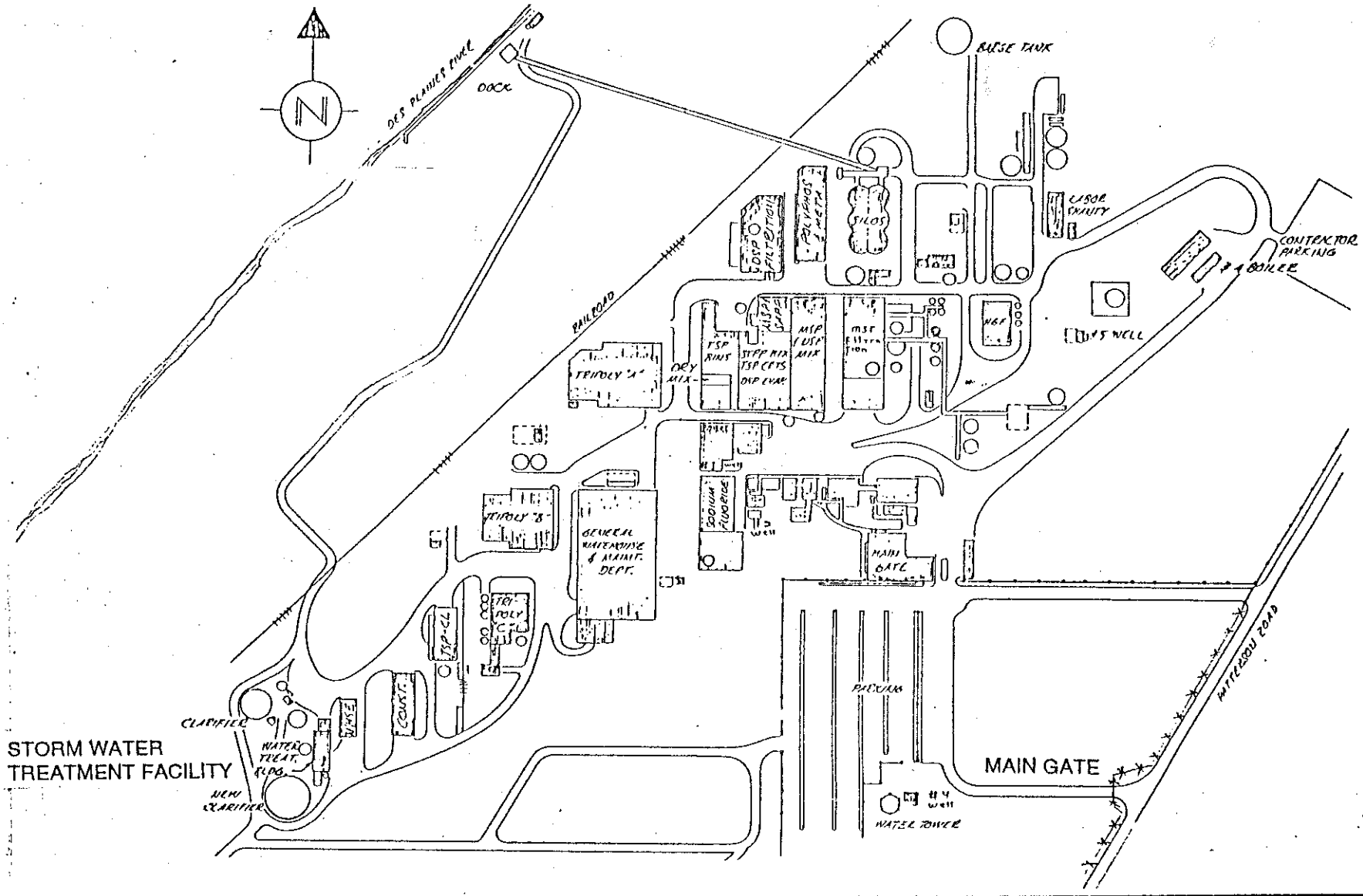
AMS 3366 I NE—SERIES V863

M&E Metcalf & Eddy

OLIN CORPORATION
SITE LOCATION
JOLIET, ILLINOIS

Project Number
153068-1-626

Figure
1



Metcalf & Eddy

OLIN CORPORATION

FACILITY BUILDINGS AND LAYOUT

JOLIET, ILLINOIS

Project Number
153068-1-626

Figure
2

The original plant began as one small building and a garage, manufacturing trisodium phosphate and glauber salt. In the early to mid thirties, disodium phosphate, crystalline and anhydrous, monosodium phosphate crystalline, sodium silicofluoride, tetrasodium pyrophosphate, sodium hexametaphosphate, and mono and dicalcium phosphate were produced. In the late thirties, mono and dicalcium phosphate production was discontinued.

In the forties, production expanded to include trisodium phosphate crystalline (1940), sulfuric acid (1942), trisodium phosphate chlorinated (1944), sodium silicofluoride (1948), and sodium fluoride (1949). Sodium tripolyphosphate was produced in trial quantities in 1942 and on a large scale in 1948.

In the fifties, several sulfuric acid plants were built. A hydrofluoric acid plant was built in 1954 and expanded in 1957. In 1957-58 an additional trisodium phosphate chlorinated plant and the present sodium hexametaphosphate plant were built. During the fifties the Joliet facility also produced limited quantities of tetrapotassium pyrophosphate. In 1959 the gypsum pile was built to assist in the production of phosphoric acid.

During the sixties and seventies, refinements and expansion were added to support the current Joliet production line. In 1969, Olin discontinued producing sulfuric acid due to the age of the plant and in 1975 hydrofluoric acid production was discontinued.

The facility has never been connected to a municipal sewer system. A facility sanitary sewer system has operated since the mid 1960s. In approximately 1965 an inground sanitary sewer was installed just south of the Maintenance and Warehouse building and operated until approximately 1980. It was removed in 1982. The present sanitary sewer was constructed in 1976 and served the facility until it became inactive in 1991. Presently, the facility is on a septic system.

Plant process water was initially obtained from wells located on the facility property. Starting in the early 1970s, various production lines began recycling process waters through the phosphate ponds. In 1976, all process makeup water was recycled and drawn from Total Retention Pond #2 (TRP #2) with augmentation from plant wells.

Olin originally notified the U.S. EPA as a generator of hazardous waste and as a TSD before reverting to small quantity generator status. Waste streams at the plant included unknown quantities of the following: D001 - grease/petroleum distillate, sodium permanganate solution, waste flammable liquid, waste oxidizer, waste acid, waste alkaline, waste paint related material, waste perchloric acid, waste hydrogen peroxide; D002 - waste lab acid, waste ammonium hydroxide, sodium hydroxide, sodium silicate, sodium & potassium silicates, diethylethanolamine; D003 - Reactive; D004 - Arsenic; D005 -

Barium; D006 - Cadmium; D007 - Chromium; D008 - Lead; D009 - Mercury; D010 - Selenium; D011 - Silver; D014 - Methoxychlor; D018 - Benzene (oil and paint thinner); F002 - spent halogenated solvents such as 1,1,1-trichloroethane; F003 - spent non-halogenated solvents such as xylene; F005 - spent non-halogenated solvents such as methyl ethyl ketone, and lab packs. In 1991 and 1992, Olin Corporation removed all hazardous wastes from the facility which qualified them as a large quantity generator. (See Table 1: Olin Wastes by Chemical Composition and Waste Code.)

2.3 RELEASE HISTORY

One release of hazardous waste was documented at the Joliet facility. In 1983, a mercury spill of unknown quantity occurred at the facility. No records of the spill were available from Olin at the time of the VSI. According to Olin representatives the mercury and mercury contaminated clothing may have resulted from a broken temperature gauge on a facility kiln. U.S. EPA file information indicates that spilled materials and contaminated clothing were double contained in steel drums and stored in a designated on-site hazardous waste storage area prior to off-site disposal.

2.4 REGULATORY HISTORY

On March 27, 1980, the U.S. EPA performed a Potential Hazardous Waste Site Identification and Preliminary Assessment for the Olin Joliet facility identifying it as an active generator of hazardous waste and a landfill.

On July 28, 1980, the U.S. EPA performed a Potential Hazardous Waste Site Tentative Disposition for the Olin Joliet facility and found that investigative action was needed due to insufficient information on the facility.

On August 18, 1980, Olin filed a Notification of Hazardous Waste Activity listing activity as both a generator and TSD. Wastes generated at the site included F002, F003, F005, U239, U002, U013, U133, U154, U196, D002.

On September 28, 1980, the U.S. EPA supplied the Joliet facility with a hazardous waste identification number: ILD049809379.

On November 17, 1980, Olin filed a Part A Application with the U.S. EPA listing S02 (waste tanks), T03 (incinerator) and S01 (containers) holding the following wastes: K054, D001, D002, F002, F003, F005, U239, U002, U133, U154, U196, U013. Olin stated that no waste is normally generated at the Joliet facility, but products may be considered a hazardous waste if they are spilled or become off-specification.

TABLE 1

OLIN WASTES, BY CHEMICAL COMPOSITION AND HAZARDOUS WASTE CODE

Hazardous Material Waste Code:	Chemical/Material
Characteristic waste D001	grease/petroleum distillate sodium permanganate solution waste flammableliquid waste oxidizer waste acid waste alkaline waste paint related material waste perchloric acid waste hydrogen peroxide
Characteristic waste D002	waste lab acid waste ammonium hydroxide sodium hydroxide sodium silicate sodium & potassium silicates diethylethanolamine
Characteristic waste D003	Reactive
Characteristic waste D004	Arsenic
Characteristic waste D005	Barium
Characteristic waste D006	Cadmium
Characteristic waste D007	Chromium
Characteristic waste D008	Lead
Characteristic waste D009	Mercury
Characteristic waste D010	Selenium
Characteristic waste D011	Silver
Characteristic waste D014	Methoxychlor
Characteristic waste D018	Benzene (oil and paint thinner)
Listed waste F002	1,1,1 trichloroethane
Listed waste F003	Xylene
Listed waste F005	Methyl ethyl ketone
Lab waste P012	Arsenic oxide

Hazardous Material Waste Code:	Chemical/Material
Lab waste P018	Brucine
Lab waste P022	Carbon disulfide
Lab waste P048	2,4-Dinitrophenol
Lab waste P098	Potassium cyanide, phenol, lead compounds
Lab waste P106	Sodium Cyanide
Lab waste P119	Vanadic acid, ammonium salt arsenic, lead, and mercury compounds, p-nitrophenol, ammonium metavanadate,brucine 2,4-dinitrophenol, ammonium vanadate
Lab waste P120	Vanadium oxide
Lab waste U002	Acetone
Lab waste U003	Acetonitrile (I,T)
Lab waste U044	Chloroform
Lab waste U051	Creosote
Lab waste U122	Formaldehyde
Lab waste U133	Hydrazine (R,T)
Lab waste U134	Hydrofluoric acid (C,T)
Lab waste U144	Lead acetate
Lab waste U154	Methanol (I)
Lab waste U169	Nitrobenzene (I,T)
Lab waste U170	p-Nitrophenol
Lab waste U188	Phenol
Lab waste U189	Phosphorus sulfide (R)
Hazardous Material Waste Code:	**Chemical/Material**
Lab waste U196	Pyridine

Hazardous Material Waste Code:	Chemical/Material
Lab waste U196	Pyridine
Lab waste U211	Methane, tetrachloro-
Lab waste U226	Ethane, 1,1,1-trichloro-
Lab waste U239	Xylene
Delisted waste K054	Chrome
Delisted waste U013	Asbestos

On November 19, 1980 the U.S. EPA conducted a RCRA Inspection on Interim Status Standards for Treatment, Storage, and Disposal Facilities, Generators, and Storage facilities. The inspectors found no wastes on-site during the inspection.

On December 19, 1980 the U.S. EPA sent a letter to Olin with an attached copy of the inspection report of 11-19-80.

On March 11, 1980 the U.S. EPA sent a Notification of Violation letter to Olin listing the following violations to be corrected:

1) No formal inspection plan
2) No inspection log or summary of malfunctions, errors, discharges, etc.
3) Personnel training records did not include job title, description of training, record of training as related to hazardous waste.
4) The contingency plan did not include a list of all emergency equipment at the facility.
5) The contingency plan did not include an evacuation plan.

On March 27, 1981 Olin replied to the Notice of Violation by justifying apparent violations and stating they were in compliance.

On July 1, 1981 a U.S. EPA communication with Olin eliminated the S02 filing from the original Part A filing.

On January 28, 1982 Olin applied for a permit with IEPA to develop and operate a TSD listing F002, F003, F005, U013.

February 11, 1982 the IEPA conducted a pre-development inspection for operating a TSD and noted that the storage areas were already in existence.

On April 5, 1982 the U.S. EPA sent an Interim Status Acknowledgement to Olin stating that the Part A Application is complete and that Olin is the owner or operator of a hazardous waste management facility.

On April 27, 1982 the IEPA granted a development permit for a waste management facility to store special wastes with several conditions for Olin to follow during development.

On May 5, 1982 Olin requested an operating permit for the Hazardous Waste Storage Area from IEPA.

On May 18, 1982 the IEPA notified the Village of Rockdale that Olin has requested an operating permit for a Hazardous Waste Storage Area and solicited comments.

On June 18, 1982 the IEPA granted an operating permit to Olin for a Hazardous Waste Storage Area with all the standard conditions applying.

On July 28, 1983 Olin notified both the IEPA and U.S. EPA that M.S. Davenport was the authorized signatory for RCRA and NPDES Permitting Programs at the Olin - Joliet plant.

On September 19, 1983 Olin notified the IEPA of the following amendments to its permit:

1) An updated list of waste generated including F002, F003, F005, U013 and D009 (listed as the result of a spill on-site).
2) A more thorough description of the Lab packs including P106, P098, P120, U189, U051, D005, U122, U170, U169, P119, D007.

On September 22, 1983 Olin notified the U.S. EPA of revisions in its Part A Application.

On January 9, 1984 the U.S. EPA requests a formal Part A withdrawal from Olin for the Joliet facility.

On January 23, 1984 Olin responded to the U.S. EPA letter of 1-9-84 and formally requested a withdrawal of their Part A Application due to the small quantity generator exclusion.

On February 29, 1984 the U.S EPA requested additional information from Olin in support of the Part A Application withdrawal request. The U.S. EPA was interested in wastes generated of acute toxicity including: sodium cyanide, potassium cyanide, and vanadium oxide.

On March 28, 1984 Olin informed the IEPA that because IEPA was handling facility closures it was submitting the information requested in the U.S. EPA letter of 2-29-84 to IEPA along with a closure plan for the storage area. Olin also informed IEPA that the initial S02 (tank storage) from the original notification was never built and was deleted from the application on 7-1-81.

On March 11, 1986 IEPA informed Olin of a discrepancy in generator codes used by OLIN. IEPA records show a waste stream permit code of 1970450010. Evidently Olin used 1970455012.

On November 25, 1986 Olin informed the U.S. EPA that the PCB storage area had ceased operations. All PCB items were removed and storage pans decontaminated.

On January 23,1989 the IEPA informed Olin that in June 1989 the permit for special waste disposal, treatment, or storage would expire.

On February 11, 1991 the IEPA sent a reminder of new rules (9-18-90) for governing design and operation of all new and existing landfills. Landfills must notify by 3-18-91 when they will close.

On February 27, 1991 Olin responded to the IEPA letter of 2-11-91 stating that the Landfill Notification did not apply to Olin.

On April 30,1991 Olin informed the IEPA of the transfer of Olin's industrial phosphate business to Albright and Wilson Americas, its phosphate joint venture partner. During the transition period, the Joliet plant will be temporarily inactive. Olin will continue to operate its waste water treatment facility during the time that the plant is inactive.

On May 2, 1991 the IEPA issued a NPDES permit for discharges from the plant.

On May 9, 1991 Olin petitioned the Illinois Pollution Control Board for a variance of regulations covering air emissions and when certain modifications need be completed for the plant as operations of certain scrubbers will be discontinued for an unknown period of time. The variance (PCB 89-72) was granted provided that OLIN followed the stipulations of the Order.

On June 29, 1991 Olin submitted an EPA Form R (Toxic Chemical Release Reporting) to the IEPA. Olin also informed the IEPA that the facility ceased production operations in June, 1991 with the exception of the SWTF.

On August 2, 1991 the IEPA accepted a biomonitoring plan pertaining to the OLIN Waste Water Treatment Plant. The plan was submitted by Olin on July 12, 1991.

On February 21, 1992 Olin filed a 1991 Illinois Hazardous Waste Report with the IEPA for the Olin facility. In the comments section, Olin stated that the plant in Joliet ceased production in June, 1991. As a result of the shut down and subsequent removal of raw or obsolete materials, the Joliet plant would be a large quantity generator of hazardous waste. Olin also stated that they expect to revert to small quantity generator status again in 1993. The only remaining activity occurring at the facility is the operation of the storm water treatment plant. Wastes shipped off-site included: waste oil and water containing 1,1,1 trichloroethane (F001), grease/petroleum distillate (D001), oil and paint thinner (D018), sodium permanganate solution (D001), waste lab acid (D002), and lab packs (P012, P018, P022, P048, P098, P119, P120).

On February 24, 1992 Olin filed a Tier Two Emergency and Hazardous Chemical Inventory Form for the Joliet facility. Olin also stated that the form for the 1992 year would be

substantially different due to plant operations ceasing in June, 1991.

On April, 1992, Olin submitted a Spill Prevention and Countermeasure Plan for the Joliet facility to the IEPA.

On December 15, 1992 IEPA informed the U.S. EPA that it was withdrawing the variance of May 9, 1991 docketed as PCB 89-72 for the Olin facility as the variance had expired, no request for extension had been requested, and the plant had been shut down. (See Table 2 for the current status of all SWMUs.)

No other violations or environmental permits are known to be held by the Zone 17 facility.

TABLE 2
SOLID WASTE MANAGEMENT UNITS (SWMUs)
OLIN CORPORATION JOLIET PLANT

SWMU #	Description	RCRA Hazardous Waste Unit*	Status
SWMU #1:	Waste Oil Storage Area	N	Inactive**
SWMU #2:	Empty Drum Storage	N	Inactive**
SWMU #3:	Lab Pack Storage Area	Y	Inactive**
SWMU #4:	PCB Storage Area	N	Closed
SWMU #5:	Spent Solvents Storage Area	Y	Inactive**
SWMU #6:	Baghouses and Bags	N	Inactive**
SWMU #7:	Hazardous Waste Storage Building #1 - 120′ x 18′	Y	Closed
SWMU #8:	Hazardous Waste Storage Building #2 - 20′ x 26′	Y	Closed
SWMU #9:	Sewage Treatment Sludge	N	Inactive**
SWMU #10:	Sodium Phosphate Ponds	N	Active
SWMU #11:	Storm Water Treatment Facility	N	Active

Notes:

* A RCRA hazardous waste management unit is one that currently requires a RCRA permit.

** The plant was shut down in June 1991 and is currently inactive. No units have been RCRA closed.

2.5 ENVIRONMENTAL SETTING

The following sections describe the local climate, soils, surface waters, geology and hydrogeology in the area of the site.

2.5.1 Climate

The climate of Madison County can be classified as continental and is characterized by the marked changes in weather common to the latitude and to the interior of a large land mass. In winter (December, January, February) the average temperature is 31 degrees Fahrenheit, and the average daily minimum temperature is 23 degrees. In summer (June, July, August) the average temperature is 77 degrees, and the average daily maximum temperature is 87 degrees. (USDA, 1982)

The average annual precipitation is about 32 inches, with 67 percent usually falling in April through September. The one year, twenty-four hour rainfall figure for this region is 2.5 inches (Rainfall Frequency Atlas of the U.S. , 1963). Thunderstorms occur approximately 37 days each year, most occurring in the summer months, and result from storms from the west and southwest. Average seasonal snowfall in 39 inches. The mean annual lake evaporation in this area is 30 inches. (Climate Atlas of the U.S., 1968). The prevailing wind is from the west in winter and south in the summer.

2.5.2 Area Soils and Surface Waters

The natural soils in the area consist of Blount silt loam, 2-4% slopes, Rodman gravelly loam, 12-30% slopes, Nappannee silt loam, 2-4% and 4-7% slopes, Bryce silty clay, Plattville silt loam, 2-4% slopes, Chatsworth silty clay, 12-30% slopes, Channahon silt loam, 0-2% and 2-4% slopes, Romeo silt loam, and Sogn loam, 12-30% slopes. These soils are nearly level to steeply sloping, somewhat poorly drained and well drained soils that are moderately permeable throughout (USDA, 1979).

Blount silt loam is nearly level, somewhat poorly drained soil on low ridges and in shallow depressions and drainageways on uplands. Some areas of this soil are artificially drained. In undrained areas or where construction has disrupted drainage, the water table is a depth of 1 to 3 feet during the wet seasons. Water and air movement through this soil is slow, and surface runoff from cultivated areas is slow. This soil has a severe limitation for buildings because of wetness (USDA, 1979).

Rodman gravelly loam is excessively drained, steep soils on side slopes along stream channels and morainic ridges. Water and air capacity through these soils is very rapid, and surface runoff is medium (USDA, 1979).

Nappannee silt loams are nearly level and gently sloping, somewhat poorly drained soil on low ridges and knolls of glacial

till plains and tops of broad moraines on uplands. In undrained areas or in areas where systems have failed, a periodic water table is at a depth of 1 to 2 feet during the wet season. Water and air movement through this soil is very slow, and surface runoff from cultivated areas is medium. Tile drains do not function well, but narrow spacings and porous filters can be used to help improve drainage in wet spots (USDA, 1979).

Bryce silty clay is a nearly level, poorly drained soil on upland flats and in depressions and drainageways. It is occasionally flooded for a long period in spring. Many areas of this soil are artificially drained by drainage tile and to a lesser extent by surface ditches or sewer systems. In undrained areas or in areas where drainage systems have been damaged by construction, a water table is a depth of 1 foot or less during wet seasons. Water and air movement through this soil is slow, and surface runoff from cultivated areas is slow to ponded (USDA, 1979).

Plattville silt loam is well drained and formed in glacial drift over limestone uplands. Drainage may be needed in some areas (USDA, 1979).

Chatsworth silty clay is strongly sloping, moderately well drained soil on severely eroded side slopes of ridges and knolls in rolling morainal areas. Water and air movement through this soil is very slow, and surface water runoff from cultivated areas is rapid (USDA, 1979).

Channahon silt loam consists of shallow, well and moderately well drained soils thinly formed in loamy drift over limestone on uplands (USDA, 1979).

Romeo silt loam is very shallow, nearly level soil on flood plains and water swept beaches along the Des Plaines River. It is frequently flooded for brief periods each spring. Most areas of this spoil appear to be poorly drained, but drainage is difficult to assess because of the thin soil. Underlying this is light gray, very hard limestone. The water table is at a depth of 1 foot or less during the wet seasons, and more areas are flooded by runoff from higher slopes. Water and air movement through this soil is moderate and surface water runoff from cultivated areas is slow (USDA, 1979).

Sogn loam consists of shallow and very shallow, somewhat excessively drained soils formed on residuum weathered mainly from limestone on uplands (USDA, 1979).

The Olin facility is situated along the bluffs overlooking the Des Plaines River. As a result the eastern and western edges of the property are relatively flat and for this reason water collects in puddles and pools when it rains. The plant is located between two slope areas that create a transition zone between the flat uplands and the Des Plaines River.

The closest surface water bodies in the facility vacinity are fresh water wetlands on-site and the Des Plaines River, adjacent to the facility to the west. The facility is not located in a flood prone area or within the 100 year flood plain.

Surface runoff from the facility is directed through three ponds on-site; The south pond, north pond and west pond. The west pond handles all storm water runoff from the west side of the facility as well as water from the phosphate ponds and gypsum pile. All water directed to the west pond is processed through the Olin Storm Water Treatment Facility (SWTF) prior to discharge into the Des Plaines River. The south pond and north pond are connected by a drainage ditch and culvert. Storm water from the eastern edge of the facility flows from the south pond to the north pond which discharges to the Des Plaines River. Prior to discharge the water is analyzed. If any contaminants are found in water contained in the north pond, the outfall is diverted to the west pond. Outfalls from the ponds and SWTF are permitted by NPDES permits. (See Appendix C for laboratory analyses of the north pond and gypsum pile.)

2.5.3 Area Geology and Hydrogeology

Topographic features in the area of the site are a result of both glacial deposition and erosion. Moraines, and hilly ridges, composed of till deposited by glacial ice are conspicuous topographic features in Will County (Illinois State Water Survey, 1976). The Olin facility is adjacent to the Des Plaines River along the bluffs that mark the transition between the upland lake plains and the river valley.

The upland plains are a result of glacial outwash and lake deposition. The result is large flat plains underlain by till. This till averages a depth of 20 feet over approximately 75% of the county. It is composed of unsorted debris consisting of pebbles, cobbles, and boulders embedded in a matrix of clay, silt, and sand, deposited by glacial ice (Illinois State Water Survey, 1976).

The Des Plaines River is a major transportation route between the Great Lakes and the Mississippi River. Barge traffic makes the Des Plaines River one of the busiest in the country as large quantities of grain, soybeans, coal, oil, chemicals, and mineral products are transported each year. In addition, several rail lines take advantage of the easy valley grade in routing track out of Chicago to the west and south (Illinois State Water Survey, 1976).

Will County is unique among the five counties that make up northeastern Illinois in that bedrock lies very near the surface and in many places is exposed at the surface. Bedrock outcrops in several locations on the OLIN facility property. This bedrock is Silurian age dolomites. The dolomite is suitable for use in the making of construction aggregate, and building stone.

Quarrying in the area of the OLIN facility often includes sand and gravel production as the sand and gravel overlie the bedrock (Illinois State Water Survey, 1976).

Will County obtains all its drinking and industrial water from groundwater resources. There are two main aquifer systems that are developed in the county - a shallow system and a deep system. The shallow aquifer is the uppermost water-bearing unit and is located approximately 20 feet below grade. It consists of the shallow Silurian dolomites and the associated sand and gravel deposits in the overlying glacial drift. A majority of public and private wells use the shallow Silurian dolomite. It is capable of yielding moderate to large quantities of water. The deep aquifer consists of sandstone and dolomite formations of Cambrian and Ordivician Ages. Almost all of the industrial plants along the Des Plaines Valley obtain their water from the deep sandstone aquifers because they contain greater quantities of water. (Illinois State Water Survey, 1976). Olin groundwater wells use the deep aquifer and range from 1200 - 1700 feet in depth. Groundwater and surface water flow is believed to be in a westerly direction, towards the Des Plaines River in the area of the facility.

2.6 RECEPTORS

The Olin facility is located in a mixed industrial and agricultural area. The facility is fenced with a 24-hour monitored gate. A phone and electronic control system are located at the gate. Commonwealth Edison maintains a power plant immediately north of the facility and Chem Waste Management operates a hazardous waste landfill immediately to the south. Residences in the area are adjacent to the facility on the south and east. These residences are approximately 700 feet south and 1,000 feet east of the phosphate ponds. Farmland adjoins the facility to the east and south with the Des Plaines River to the west. A major rail line lies between the river and the facility. Other residences, industry, and agricultural land are located within a four mile radius of the facility.

The highest concentration of residences is to the northwest, north, and northeast. Prevailing winds are from the west in the winter and south in the summer. Therefore the predominant downwind direction in the summer is in the direction of area residents. No reports of hazardous odors have been reported.

The nearest surface water bodies are fresh water wetlands on-site and the Des Plaines River adjacent to the facility to the west. The Des Plaines is a major transportation corridor in the central U.S. as well as a popular recreation source and tourist attraction.

Sensitive environments in the vicinity of the facility include on-site freshwater wetlands (larger than two acres) and sensitive habitats for endangered species. Sensitive habitat for

the Bald Eagle is situated adjacent to the facility along the Des Plaines River. Sensitive habitats for the Indian Bat, Lakeside Daisy, and Prairie Clover are found within a four mile radius of the facility.

Wells for nearby residences are located adjacent to the facility on the south and within 1/4 mile to the east. These wells have an average depth of approximately 100 - 150 feet and draw from the shallow Silurian dolomite aquifer. The facility operated 6 deep aquifer wells ranging in depth from 1,250 - 1,700 feet. Water from these wells was used for drinking, process, and sanitary uses until 1977. At that time, the plant began to recycle process water and drinking fountains in the facility were replaced with bottled water. At present, only one of these wells is used to supply the SWTF with sanitary and process water. A 300,000 gallon water tower is located on site and was used for emergency backup. At the time of inspection the tank was empty.

3.0 SOLID WASTE MANAGEMENT UNITS

This section describes in detail the SWMUs identified during the PA/VSI. It includes a description of the waste unit, dates of operation, wastes managed, release controls, release history, and observations. (See Figures 3 & 4 for SWMU/AOC locations & Appendix A for photographs of SWMUs and AOCs. Appendix D contains waste manifests.)

SWMU #1: **Waste Oil Storage Area**

Unit Description: Waste oil was stored in a 8000 - 10,000 gallon tank at the southwest corner of the TEOX Building. The tank is inside a diked area and is marked as a container of waste oil only. Prior to 1980, oil was drummed at various locations in the facility and transported off-site.

Date of Start up: 1980.

Date of Closure: The unit became inactive in August 1991.

Wastes Managed: Waste oil was generated from pumps, gear reducers and fork lifts in the plant.

Release Controls: The unit is located on the concrete foundation of the building and the area around the tank is diked.

History of Release: No releases have been documented or reported.

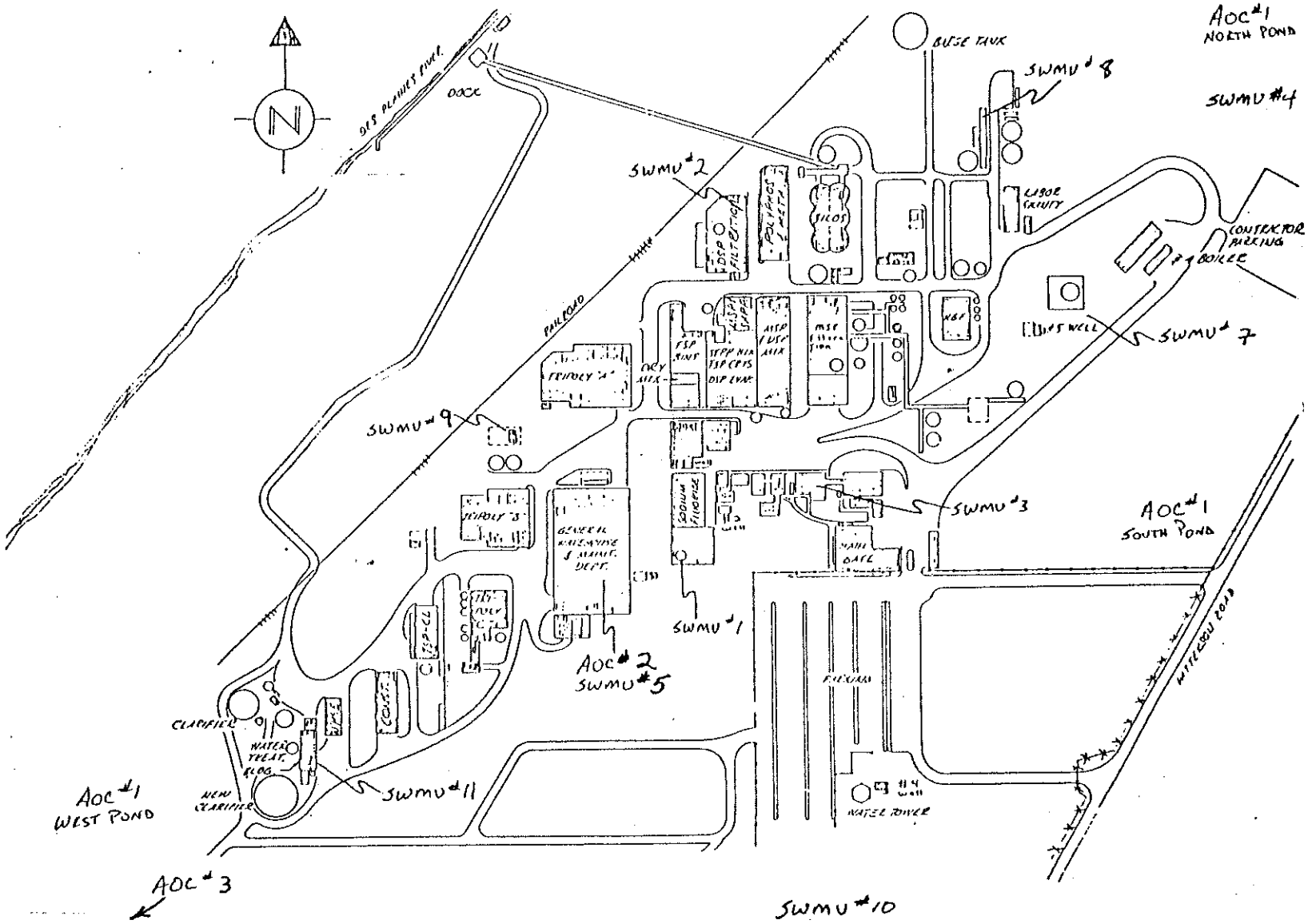
Observations: SWMU was in good condition and empty at the time of inspection. Waste oil was shipped off-site for energy recovery.

SWMU #2: **Empty Drum Storage**

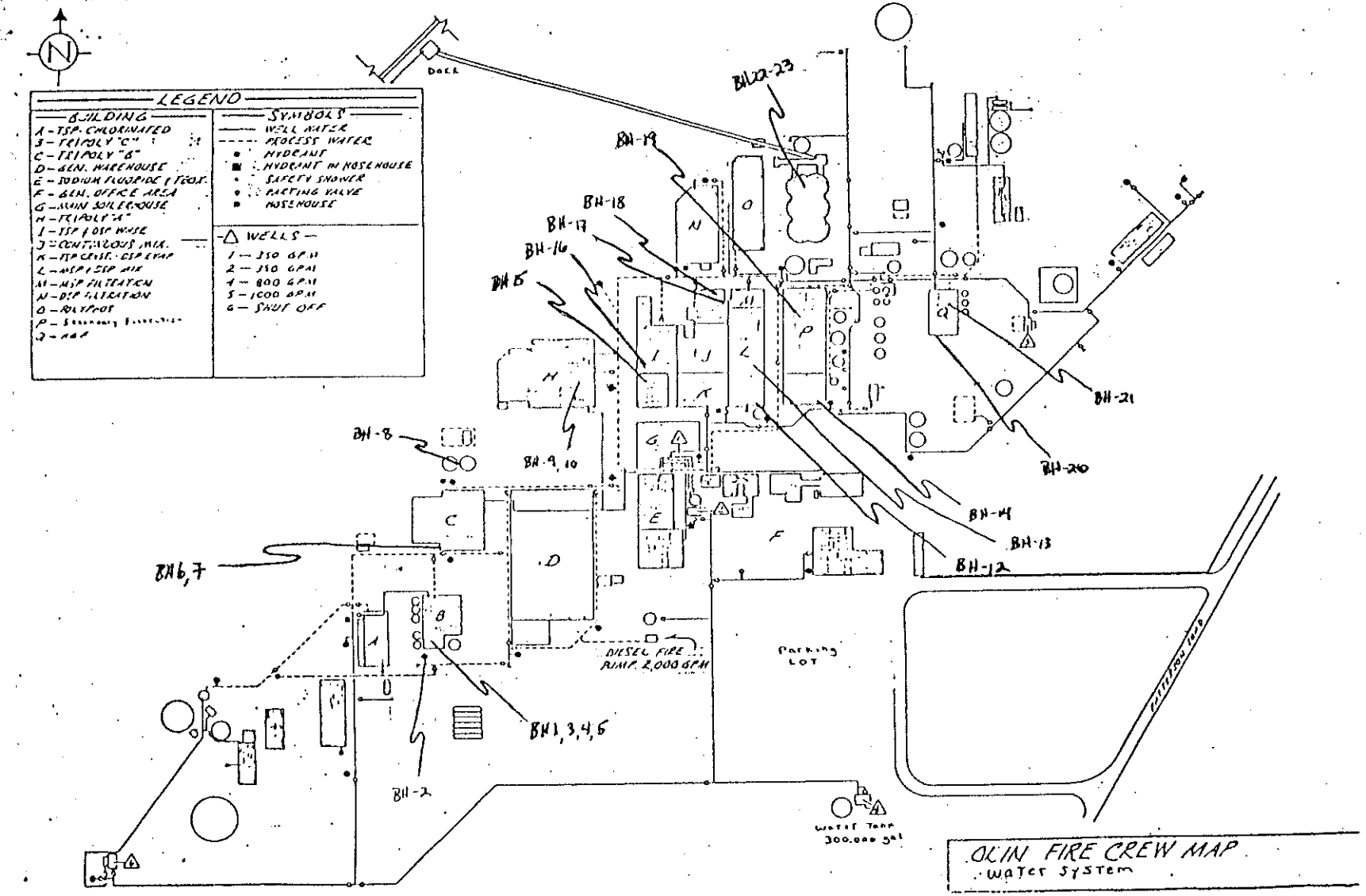
Unit Description: These drums are made of steel and polystyrene and contained virgin products. These products included oils, acids, and solvents which were used in various plant processes. When the drums were empty they were washed out and stored prior to reuse or shipment off-site. Washing was done at the old 55 building now listed as DSP Filtration. Prior to 1982, drum cleaning was done at various locations throughout the plant. Rinse water drained to the facility's recycled process water system.

Date of Start up: 1982.

Date of Closure: The unit became inactive in 1991.



M&E Metcalf & Eddy	OLIN CORPORATION FACILITY LAYOUT SWMUs 1 - 5, 7 - 11/AOCs 1 - 3 JOLIET, ILLINOIS	Project Number 153068-1-626 Figure 3



Metcalf & Eddy

OLIN CORPORATION
SWMU #6 BAGHOUSE LOCATIONS
JOLIET ILLINOIS

Project Number
153068-1-626

Figure
4

Wastes Managed: Product residues from drums.

Release Controls: Drum washing occurred on a concrete floored area. The area drains to the facility recycled process water system.

History of Release: No releases have been documented or reported.

Observations: SWMU was inactive at the time of inspection. Some staining on the walls and floors in the former SWMU area was noted, but the origin of the stains is unknown.

SWMU #3: **Lab Pack Storage Area**

Unit Description: Lab chemicals and reagents for product analysis were stored in a small closet on the second floor of Building #2 in the process tech area. The storage closet was marked as a storage area and the doorway was diked to prevent release to the building.

Date of Start up: The first evidence of operations at the facility was a Permit A Hazardous Waste Facility Application dated August 18, 1980. However, interviews with facility employees indicate that this SWMU operated prior to 1980.

Date of Closure: The unit became inactive in July 1991.

Wastes Managed: Lab reagents and chemicals.

Release Controls: Storage area is a closet inside a building, enclosed behind a locked door and is diked. All materials were left in their original bottles and containers. Prior to transport off-site, materials were packed in 1/2 barrel containers with chem-dry as packing material.

History of Release: No releases have been documented or reported.

Observations: SWMU was empty at the time of inspection. No signs of staining or releases were observed. The building in which the SWMU is located is now closed and locked.

SWMU #4: **PCB Storage Area**

Unit Description: PCB contaminated oil was transferred from facility transformers and motors in this area for shipment off-site. PCB contaminated oil drained into steel pans which was in turn transferred to a 55-gallon steel drum prior

to shipment for disposal. The SWMU was located in a small building separate from the manufacturing facility.

Date of Start up: 1984.

Date of Closure: 1987.

Wastes Managed: PCB contaminated oil.

Release Controls: Transformers and motors were placed in metal pans on a concrete pad inside the building. PCB contaminated oil was then transferred from the pans to 55-gallon steel drums.

History of Release: No releases have been documented or reported.

Observations: Pans were clean and empty at the time of inspection and the building was fenced and locked. Ponded water surrounded the building at the time of inspection.

SWMU #5: **Spent Solvents Storage Area**

Unit Description: Spent solvents and paint waste were placed into a 55-gallon steel drum located in the Maintenance and Warehouse Building. A parts washer was also located at this location. Accumulated spent solvents were transported within 90 days by Chem Waste Management.

Date of Start up: The first evidence of operations at the facility was a Permit A Hazardous Waste Facility Application dated August 18, 1980. However, interviews with facility employees indicate that this unit was operated prior to 1980.

Date of Closure: The unit became inactive in December 1992.

Wastes Managed: Spent solvents including 1,1,1 trichloroethane, methylene chloride, benzene, and carbon tetrachloride including some paint waste.

Release Controls: Solvents were contained inside a 55-gallon steel drum stored on a concrete slab inside the warehouse building. Building floor drains are connected to the facility recycled process water system.

History of Release: No releases have been documented or reported

Observations: All spent solvents had been removed from the facility at the time of inspection.

SWMU #6: **Baghouses and Bags**

Unit Description: Each of the phosphate manufacturing buildings contain vertical separators to remove phosphate dust from exhaust air. These baghouses and associated bags collected phosphate dust which was then recycled back into the phosphate manufacturing process.

Date of Start up: 1926.

Date of Closure: The unit became inactive in 1991.

Wastes Managed: Phosphate dust.

Release Controls: 23 steel bag houses and three kinds of bags (dependent on temperature of process) used to connect baghouses to augers that reintroduced the dust into the phosphate manufacturing process. All baghouses are located inside of buildings. Any material released inside the buildings is swept up and recycled back into the facility processes. During its operation, respirator use was mandatory to prevent inhalation of phosphate dust.

History of Release: During its operation, constant releases occurred from the baghouses resulting with very fine grained dust remaining in suspension in exhaust air. It was the responsibility of several plant personnel to sweep up released dust which was then recycled back into the plant process.

Observations: At the time of inspection there was a fine phosphate powder dust covering almost all of the floors in phosphate manufacturing buildings at the plant. Dead pigeons were observed in some buildings during the VSI. When the plant closed, the dust settled out of suspension and accumulated on floors and walls. In at least one area, the dust was several feet thick. Several locations in buildings on-site had signs noting that respirators were required when the plant was in production. This dust is routinely swept up and placed into the phosphate ponds on-site for recycling as fertilizer.

SWMU #7:	**Hazardous Waste Storage Pad #1**
Unit Description:	This unit consists of a diked concrete pad, measuring 120 x 18 feet and is located outside. When Olin originally filed a Part A Application as a TSD, this area was designated as a potential storage site. Although no hazardous wastes were stored at this unit, it was treated as a hazardous waste management unit in past regulatory correspondence with the IEPA and it could be used for such purposes by future operators.
Date of Start up:	1980.
Date of Closure:	1986.
Wastes Managed:	No hazardous wastes were ever stored at this location.
Release Controls:	The unit consists of an outdoor, diked concrete pad
History of Release:	No releases have been documented or reported.
Observations:	The storage area was in good condition at the time of inspection and is currently closed.
SWMU #8:	**Hazardous Waste Storage Pad #2**
Unit Description:	This unit consists of a diked concrete pad, measuring 20x26 feet and is located outside.
Date of Start up:	1980.
Date of Closure:	1986.
Wastes Managed:	Lab packs, and mercury and mercury contaminated clothing from a spill at the facility in 1983.
Release Controls:	The unit consisted of diked concrete pad and wastes managed there were in a sealed steel drum.
History of Release:	No releases have been documented or reported.
Observations:	SWMU was in good condition at the time of inspection and is currently closed.
SWMU #9:	**Sewage Treatment Facility & Sludge**
Unit Description:	Starting in the mid 1960s, the Olin Sanitary Treatment Facility managed sanitary waste

water from the facility. Incoming wastes were biologically treated. The sludge was routinely transported by truck to the Elwood Sanitary Sewage Plant by Vanderhyden Septic for processing with Elwood activated sludge. The effluent was chlorinated prior to discharge to the Des Plaines River.

Date of Start up: An exact date for start up could not be obtained. Facility representatives estimate that the unit began operation in 1965.

Date of Closure: The unit became inactive in 1991.

Wastes Managed: Sanitary sewer sludge.

Release Controls: No release controls are known.

History of Release: No releases have been documented or reported.

Observations: The sanitary sewer plant is no longer operating. All sludges had been removed at the time of inspection.

SWMU #10: **Sodium Phosphate Ponds**

Unit Description: Three sodium phosphate ponds called Total Retention Ponds #1, #2, #2A (TRP 1, TRP 2, TRP 2A) handle process waste water from the plant. Phosphate material in the process waters settle out in these ponds and is then recycled as fertilizer material. TRP #1 is 35 acres in size. Until 1971 it was a total retention pond as any by-product from plant processes were pumped there. Water from TRP #1 is pumped to the gypsum pile where it filters through and is then treated at the SWTF. It is permitted as an inorganic holding reservoir holding sodium phosphates. TRP 2 is a 31 acre sodium phosphate pond being mined for phosphates for permitted fertilizer supplements. TRP 2A is a 7 acre pond for SWTF clarifier sludge. It may be used as a fertilizer supplement. Water from these ponds is processed through the SWTF prior to discharge into the Des Plaines River. If necessary, the water can be pumped to the gypsum pile prior to processing by the SWTF.

Date of Start up: TRP #1, 1970; TRP #2, 1973; TRP #2A, 1983.

Wastes Managed: Phosphate material in the recycled process waters and sludges from the SWTF.

Release Controls: Ponds are bermed and lined with a five foot clay layer.

History of Release: No releases have been documented or reported.

Observations: The ponds were in good condition at the time of the VSI. About, three to five feet of water was in the ponds with approximately four feet of free board to the top of the berms. Phosphate mining is currently being handled by an outside contractor.

SWMU #11: **Storm Water Treatment Facility**

Unit Description: The Storm Water Treatment Facility (SWTF) was built in 1979 and treats water from the west pond, phosphate ponds and the gypsum pile prior to discharge to the Des Plaines River. Sulfuric acid and lime are used to adjust pH and a flocculant is added to precipitate any solids from the water prior to discharge. Sludge from the SWTF is pumped to TRP #2A.

Date of Start up: 1979.

Wastes Managed: Storm water runoff from the storm water runoff ponds, phosphate ponds, gypsum pile, and facility grounds. The SWTF also manages phosphate sludges which are pumped to TRP #2A.

Release Controls: The SWTF was built on a concrete slab and a majority of the unit is indoors.

History of Release: No releases have been documented or reported.

Observations: The SWTF was in operation at the time of the VSI and was in good condition.

4.0 AREAS OF CONCERN

Twelve AOCs were identified during the PA/VSI(See Figures 3 & 5 for AOC locations):

AOC #1: **3 Ponds for Storm Water Runoff**

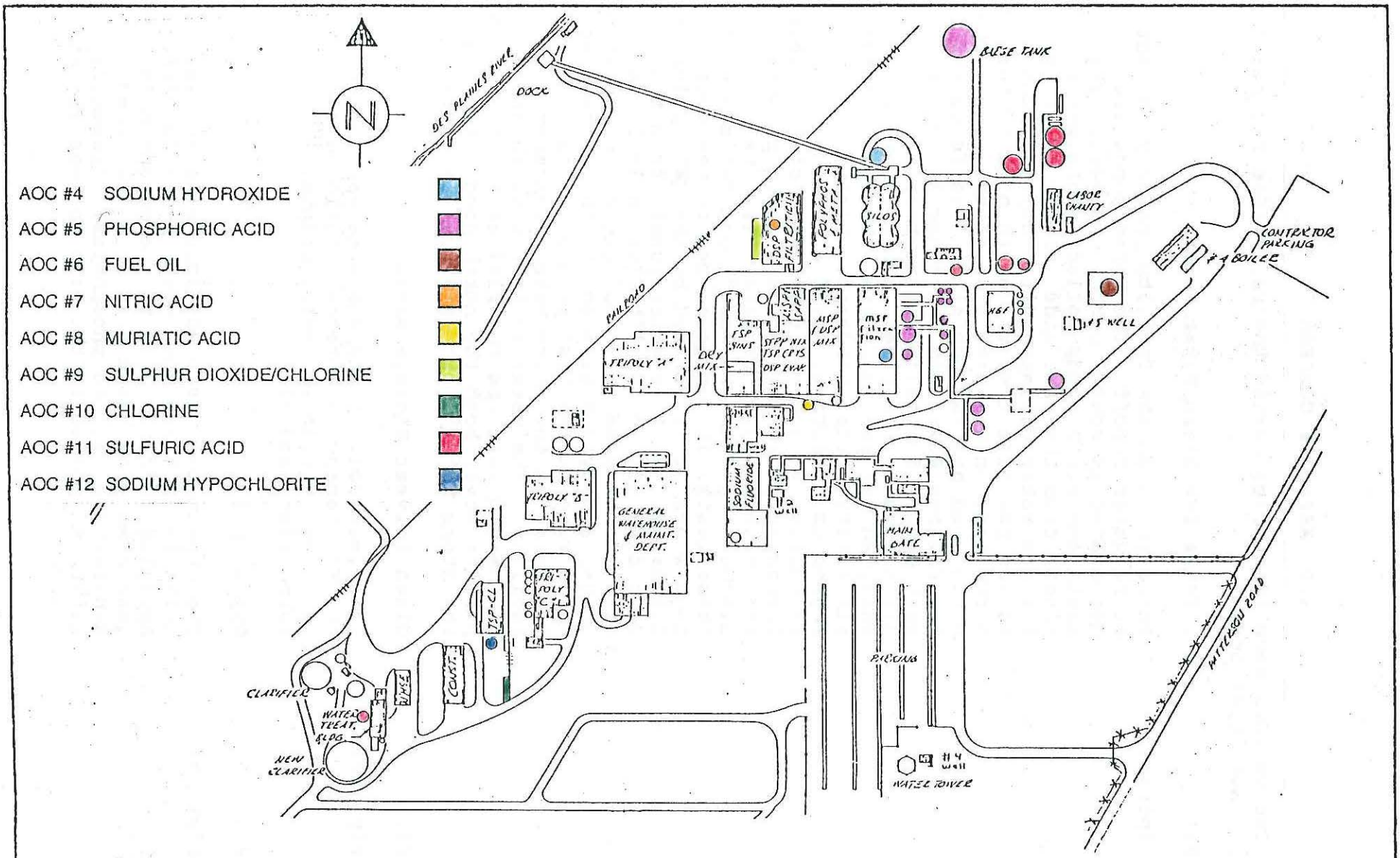
Description: Three ponds on the facility property collect storm water runoff. The three ponds are designated as south, north, and west. The south and north ponds collect storm water runoff from the east side of the facility. A storm water drainage ditch/culvert runs across the site from the south pond to the north pond on the east side of the site. The north pond has two outfalls. One is to the Des Plaines River and the other is to the west pond. Typically the north pond discharges to the river. This water is analyzed for pH, phosphate alkalinity, total alkalinity, total hardness, calcium, magnesium, chlorine, sulfate, silica, conductivity, sodium, fluoride, total soluble inorganic phosphate, soluble ortho phosphate, and soluble poly phosphate. If water discharging from the north pond fails any of these tests, it can be pumped to the west pond where it is treated by the SWTF prior to discharge. Surface water runoff from the west side of the facility (which includes most of the production buildings), phosphate ponds, and gypsum pile enters the storm sewer which runs to the west pond prior to treatment at the Storm Water Treatment Facility. The water is then treated and discharged into the Des Plaines River. NPDES permits cover both the north pond outfall and the Storm Water Treatment Facility outfall.

AOC #2: **Clean Solvent Storage Area.**

Description: The clean solvent storage area was located in the Maintenance & Warehouse building and contained virgin solvents, paints, turpentine, and oil.

AOC #3: **Gypsum pile**

Description: The gypsum pile is a 200 acre site and was built in 1959 for the phosphoric acid plant. Applying sulfuric acid to the gypsum pile generates phosphoric acid which was used manufacture various phosphates. Presently, water is applied to the pile to keep it wet



M&E Metcalf & Eddy	OLIN CORPORATION AOCs #4 -#12 JOLIET, ILLINOIS	Project Number 153068-1-626 Figure 5

and maintain its stability. Water flow through the pile is treated at the SWTF prior to discharge to the Des Plaines River. The pile was closed in 1985.

AOC #4: **Sodium Hydroxide Tanks**

Description: Two tanks contained sodium hydroxide used in the production of phosphates. One tank is located outside on a diked concrete pad. The other tank is located inside the Monosodium Phosphate filtration building and is also surrounded by diking. The tanks were empty at the time of the VSI.

AOC #5: **Phosphoric Acid Tanks**

Description: Thirteen tanks contained phosphoric acid used in the production of phosphates. All tanks are located on concrete pads and are surrounded by either diking or earthen berms. The tanks were empty at the time of the VSI.

AOC #6: **Fuel Oil Tank**

Description: One fuel oil tank is located at the facility. It contained type C diesel fuel as a backup fuel for the natural gas fired boiler #4 and the High Grade Fertilizer plant. The tank is on a concrete pad surrounded by an earthen berm. The tank was empty at the time of the VSI.

AOC #7: **Nitric Acid Tank**

Description: One tank located inside the DSP Filtration building supplied nitric acid used in the production of phosphates. The tank is inside the building and is on a diked concrete pad. The tank was empty at the time of the VSI.

AOC #8: **Muriatic Acid Tank**

Description: One tank contained muriatic acid for the production of phosphates. It is located outside the Monosodium Phosphate & Disodium Phosphate Mixing building on a diked concrete pad. The tank was empty at the time of the VSI.

AOC #9: **Sulfur Dioxide & Chlorine Cylinders**

Description: Several 1 ton cylinders of sulfur dioxide and chlorine used in the production of phosphates

were stored in a shed on the west side of the DSP Filtration building. The shed has a concrete foundation. No tanks were observed in the area during the VSI.

AOC #10: **Chlorine Tank**

Description: A railroad tank car of chlorine was used in the production of chlorinated trisodium phosphates. The car was located on tracks outside the TSP CL building and had no secondary containment. The tank car had been removed at the time of the VSI.

AOC #11: **Sulfuric Acid Tanks**

Description: Seven sulfuric acid tanks are located at the facility. Acid stored in these tanks was used in the production of phosphates or in the treatment of storm water runoff. All tanks are located on concrete pads and are surrounded by concrete diking or earthen berms. The tanks were empty at the time of the VSI with the exception of one tank used by the SWTF.

AOC #12: **Sodium Hypochlorite Tank**

Description: One tank contained sodium hypochlorite for the production of phosphate. It is located outside the TSP CL building on a diked concrete pad. The tank was empty at the time of inspection.

5.0 CONCLUSIONS AND RECOMMENDATIONS

The PA/VSI identified 11 SWMUs and 12 AOCs at the Olin Corporation facility in Joliet, Illinois. The following are Metcalf and Eddy's conclusions and recommendations for each SWMU and AOC. (See Table 3 for a summary of suggested further actions for all SWMUs and AOCs.)

SWMU #1: Waste Oil Storage Area

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The waste oil storage area is indoors, on a curbed concrete pad. At the time of inspection the storage tank was empty.

Recommendations: M&E recommends no further action at this time.

SWMU #2: Empty Drum Storage

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The waste drum storage area is indoors, on a curbed concrete pad. This pad drains to the facility recycled process water system. At the time of inspection there were no drums in the storage area.

Recommendations: M&E recommends no further action at this time.

SWMU #3: Lab Pack Storage Area

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The unit is indoors, on a curbed concrete pad. At the time of inspection the unit was empty.

Recommendations: M&E recommends no further action at this time.

SWMU #4: PCB Storage Area

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The unit is located in a small building that provided an indoor collection point for PCB contaminated oil from facility transporters. PCB contaminated

oil was drained from the transformers onto a steel pan which was situated on a concrete pad. The waste was then drained into a 55-gallon steel drum prior to shipment off-site. The building is fenced and locked to prevent unauthorized entry. At the time of inspection the building was in good condition and the transfer pans were empty.

Recommendations: M&E recommends no further action at this time.

SWMU #5: **Spent Solvents Storage Area**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The waste oil storage area is indoors, on a curbed concrete pad. At the time of inspection all spent solvents had been removed and the unit was inactive.

Recommendations: M&E recommends no further action at this time.

SWMU #6: **Baghouses and Bags**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is moderate. Most of the baghouses are indoors. Baghouses on roofs of buildings had shelters built over them. At the time of inspection all baghouses were inactive. However, there was phosphate dust at each of the baghouse locations. While this dust seems to be a hazard only to pigeons that get into facility buildings, a release from one of the buildings could contaminate area groundwater.

Recommendations: M&E recommends that Olin remove residual phosphates at all of the baghouse sites.

SWMU #7: **Hazardous Waste Storage Pad**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The unit is outdoors, on a curbed concrete pad. At the time of inspection the unit was empty.

Recommendations: M&E recommends no further action at this time.

SWMU #8: **Hazardous Waste Storage Pad**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The unit is outdoors, on a curbed concrete pad. At the time of inspection the unit was empty.

Recommendations: M&E recommends no further action at this time.

SWMU #9: **Sewage Treatment Facility & Sludge**

Conclusions: The potential for past releases to occur to groundwater, surface water, soil, and air from this unit is moderate. The unit was outdoors, with no secondary containment. The potential for current releases to groundwater, surface water, soil, or air is low. At the time of inspection the unit was inactive.

Recommendations: M&E recommends construction of secondary containment if the plant resumes operation.

SWMU #10: **Sodium Phosphate Ponds**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The ponds are bermed and all runoff is treated at the SWTF.

Recommendations: M&E recommends no further action at this time.

SWMU #11: **Storm Water Treatment Facility**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The majority of the unit is indoors, on curbed concrete pads. At the time of inspection the unit was working and observed to be in good condition.

Recommendations: M&E recommends no further action at this time.

AOC #1: **3 Ponds for Storm Water Runoff**

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The ponds are bermed and west pond water is treated at the SWTF.

North and south pond runoff can be treated at the SWTF if necessary.

Recommendations: M&E recommends no further action at this time.

AOC #2: Clean Solvent Storage Area.

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The unit is indoors, on a concrete pad. At the time of inspection the unit had approximately 8 drums of virgin solvent, 12 drums of virgin mineral oil, and 4 drums of used oil in storage. The used oil located in the unit area was in the process of being shipped off-site.

Recommendations: M&E recommends no further action at this time.

AOC #3: Gypsum pile

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The ponds are bermed and all runoff is treated at the SWTF.

Recommendations: M&E recommends no further action at this time.

AOC #4: Sodium Hydroxide Tanks

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The tanks are currently empty and are situated on a diked concrete pad.

Recommendations: M&E recommends no further action at this time.

AOC #5: Phosphoric Acid Tanks

Conclusions: The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The tanks are currently empty and situated on a diked concrete pad.

Recommendations: M&E recommends no further action at this time.

AOC #6:	**Fuel Oil Tank**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The tank is currently empty and situated on a concrete pad inside a bermed area.
Recommendations:	M&E recommends no further action at this time.
AOC #7:	**Nitric Acid Tank**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The tank is currently empty and situated on a diked concrete pad.
Recommendations:	M&E recommends no further action at this time.
AOC #8:	**Muriatic Acid Tank**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The tank is currently empty and is situated on a diked concrete pad.
Recommendations:	M&E recommends no further action at this time.
AOC #9:	**Sulfur Dioxide & Chlorine Cylinders**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low due to the fact that all tanks have been removed.
Recommendations:	M&E recommends no further action at this time.
AOC #10:	**Chlorine Tank**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low due to the fact that the tank car has been removed.
Recommendations:	M&E recommends no further action at this time.

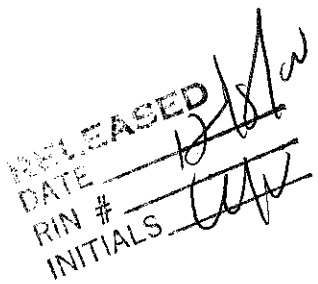
AOC #11:	**Sulfuric Acid Tanks**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. All but one of the tanks are currently empty and are situated on diked concrete pads.
Recommendations:	M&E recommends no further action at this time.
AOC #12:	**Sodium Hypochlorite Tank**
Conclusions:	The potential for a release to occur to groundwater, surface water, soil, and air from this unit is low. The tank is currently empty and is situated on a diked concrete pad.
Recommendations:	M&E recommends no further action at this time.

TABLE 3
SWMUs, AOCs, AND SUGGESTED FURTHER ACTIONS

SWMU	Operational Dates	Evidence of Release	Suggested Action
1	1980 to 1991**	None	None
2	1982 to 1991**	None	None
3	1980* to 1991**	None	None
4	1984 to 1987	None	None
5	1980* to 1992**	None	None
6	1926 to 1991**	None	Remove residual phosphates
7	1980 to 1986	None	None
8	1980 to 1986	None	None
9	1965*** to 1991**	None	Secondary containment (If plant resumes operation)
10	1970 to present	None	None
11	1979 to present	None	None

AOC	Operational Dates	Evidence of Release	Suggested Action
1	1980 to present	None	None
2	1980* to present	None	None
3	1959 to present	None	None
4	1930*** to 1991	None	None
5	1930*** to 1991	None	None
6	1940*** to 1991	None	None
7	1930*** to 1991	None	None

AOC	Operational Dates	Evidence of Release	Suggested Action
8	1930*** to 1991	None	None
9	1944*** to 1991	None	None
10	1957 to 1991	None	None
11	1942 to 1991	None	None
12	1957 to 1991	None	None



Notes:

* The first evidence of operations at the facility was a Permit A Hazardous Waste Facility Application dated August 18, 1980. However, interviews with facility employees indicate that the units have been in operation prior to 1980.

** The main plant was shut down in June 1991. As a result, most SWMUs are inactive (with the exception of the Sewage Water Treatment Facility) but not RCRA closed. Final closure or SWMU status will not be clarified until the transfer of the property is completed in 1995.

*** This indicates that this date is only an estimate by facility employees.

REFERENCES

1. U.S. EPA, March 27, 1980, Potential Hazardous Waste Site Identification and Preliminary Assessment for the Olin Joliet.

2. U.S. EPA, July 28, 1980, Potential Hazardous Waste Site Tentative Disposition for the Olin-Joliet.

3. Olin Corporation, August 18, 1980, Notification of Hazardous Waste Activity.

4. U.S. EPA, September 28, 1980, notification of Olin's hazardous waste identification number.

5. Olin Corporation, November 17, 1980, Part A Application.

6. U.S. EPA, November 19, 1980, RCRA Inspection on Interim Status Standards for Treatment, Storage, and Disposal Facilities, Generators, and Storage facilities.

7. U.S. EPA, December 11, 1980, Record of communication on inspection of 11-19-80.

8. U.S. EPA, December 19, 1980, letter to Olin with an attached copy of the inspection report of 11-19-80.

9. U.S. EPA, January 27, 1981, form indicating that Olin - Joliet meets all necessary requirements for Interim Status.

10. U.S. EPA, February 19, 1981, Interoffice Communication on Olin compliance at the Joliet facility.

11. U.S. EPA, March 11, 1980, Notification of Violation letter to Olin.

12. Olin Corporation, March 27, 1981, reply to the Notice of Violation.

13. U.S. EPA, July 1, 1981, Communication with Olin deleting the S02 filing from the original Part A filing.

14. U.S. EPA, September 28, 1981, Master Facility Listing for the Joliet facility.

15. Olin Corporation, January 28, 1982, Application for an IEPA permit to develop and operate a TSD.

16. IEPA, February 11, 1982, Pre-development inspection notes.
17. IEPA, February 19, 1982, Memorandum on the inspection of 2-11-82.

18. U.S. EPA, April 5, 1982, Interim Status Acknowledgement to Olin.

19. IEPA, April 27, 1982, Development permit to store special wastes.

20. Olin Corporation, May 5, 1982, Request for an operating permit for the Hazardous Waste Storage Area from IEPA.

21. IEPA, May 18, 1982, notified the Village of Rockdale that Olin has requested an operating permit for a Hazardous Waste Storage Area.

22. IEPA, May 26, 1982, Memorandum on Pre-operation inspection was conducted at the Joliet facility on May 25, 1982.

23. IEPA, June 18, 1982, Letter granting an operating permit to Olin for a Hazardous Waste Storage Area.

24. Olin Corporation, July 28, 1983, Responses to RCRA and NPDES Permitting Programs.

25. Olin Corporation, September 19, 1983, notification to the IEPA of amendments to its permit.

26. Olin Corporation, September 22, 1983, notification to the U.S. EPA of revisions in its Part A Application.

27. U.S. EPA, October 6, 1983, memo to the file.

28. U.S. EPA, January 9, 1984, request for a formal Part A withdrawal from Olin for the Joliet facility.

29. Olin Corporation, January 23, 1984, response to the U.S. EPA letter of 1-9-84.

30. U.S. EPA, February 2, 1984, Record of communication.

31. U.S. EPA, February 14, 1984, Conversation Record with Olin confirming Olin's small quantity generator status.

32. U.S. EPA, February 29, 1984, request for additional information from Olin to support Part A Application withdrawal request.

33. U.S. EPA, March 1, 1984, Memo on additional information letter of 2-29-84.

34. Olin Corporation, March 28, 1984, response to U.S. EPA information request.

35. U.S. EPA, April 3, 1984, Memo on small quantity generator status of OLIN.

36. IEPA, On March 11, 1986, letter informing Olin of a discrepancy in generator codes used by Olin.

37. Olin Corporation, November 25, 1986, informed the U.S. EPA that the PCB storage area had ceased operations.

38. U.S. EPA, December 10, 1986, memo on Olin - Joliet's Part A withdrawal.

39. IEPA, January 23,1989, letter informing Olin that in June 1989 the permit for special waste disposal, treatment, or storage would expire.

40. IEPA, February 11, 1991, Reminder of new rules (9-18-90) for governing design and operation of all new and existing landfills.

41. Olin Corporation, February 27, 1991, response to the IEPA letter of 2-11-91.

42. Olin Corporation, April 30,1991, letter informing the IEPA of the transfer of Olin's industrial phosphate business to Albright and Wilson Americas, its phosphate joint venture partner.

43. IEPA, May 2, 1991, NPDES permit for discharges from the plant.

44. Olin Corporation, May 9, 1991, Petition to the Illinois Pollution Control Board for a variance of regulations covering air emissions.

45. Olin Corporation, June 29, 1991, EPA Form R, Toxic Chemical Release Reporting.

46. Olin Corporation, July 3, 1991, Letter informing the IEPA of the facility's inactive status.

47. IEPA, August 2, 1991, letter accepting a biomonitoring plan pertaining to the Olin Waste Water Treatment Plant.

48. Olin Corporation, February 21, 1992, a 1991 Illinois Hazardous Waste Report.

49. Olin Corporation, February 24, 1992, Tier Two Emergency and Hazardous Chemical Inventory Form.

50. Olin Corporation, April 1992, Olin Spill Prevention and Countermeasure Plan for the Joliet facility with IEPA.

51. IEPA, December 15, 1992, letter informing the U.S. EPA that it was withdrawing the PCB variance for PCB storage at the Olin-Joliet facility.

52. Joe Carroll, Olin Corporation representative, telephone memorandums on 2/16/93, 2/18/93, 2/22/93, 2/23/93, 2/24/93, 2/25/93.

Appendix A

APPENDIX A

VISUAL SITE INSPECTION SUMMARY AND PHOTOGRAPH LOG

VISUAL SITE INSPECTION SUMMARY
OLIN CORPORATION
JOLIET, ILLINOIS

Date:	January 20, 1993.
Facility Representatives:	Vicki Ray, Olin Corporation. Joe Carroll, Olin Corporation. George Thompson, Olin Corporation
State Representative:	None present.
Inspector:	Jeff Miller, Metcalf and Eddy. Tim Temple, Metcalf and Eddy.
Weather Conditions:	Cloudy, approximately 32 degrees, light breeze. Rain showers in the late afternoon.

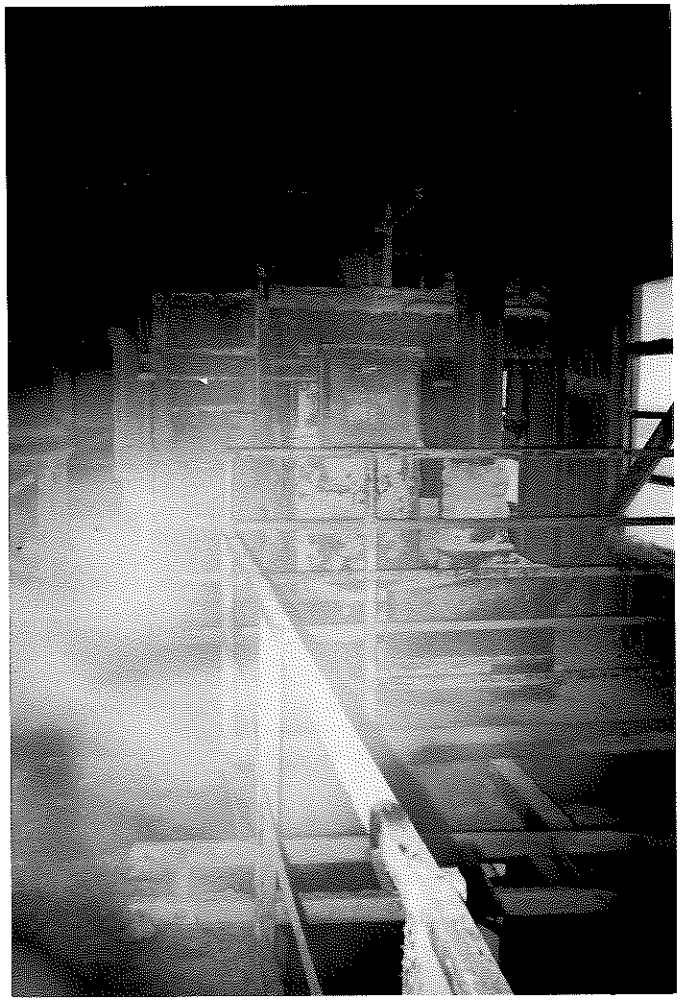
Summary: The VSI began at 9:00 a.m. on January 20, 1993. The site representatives met with the inspector to help provide information on prior site activities and conditions, release history, receptors and data gaps.

A site walk-through was conducted at 1:00 p.m. to identify the former locations of SWMUs and potential AOCs determined during the initial file review. The potential for release of hazardous substances to the environment and probable pathways were assessed during the site inspection. Photographs were taken in the area of all past SWMUs and potential AOCs. Permission was granted by Olin Corporation to inspect and take photos.

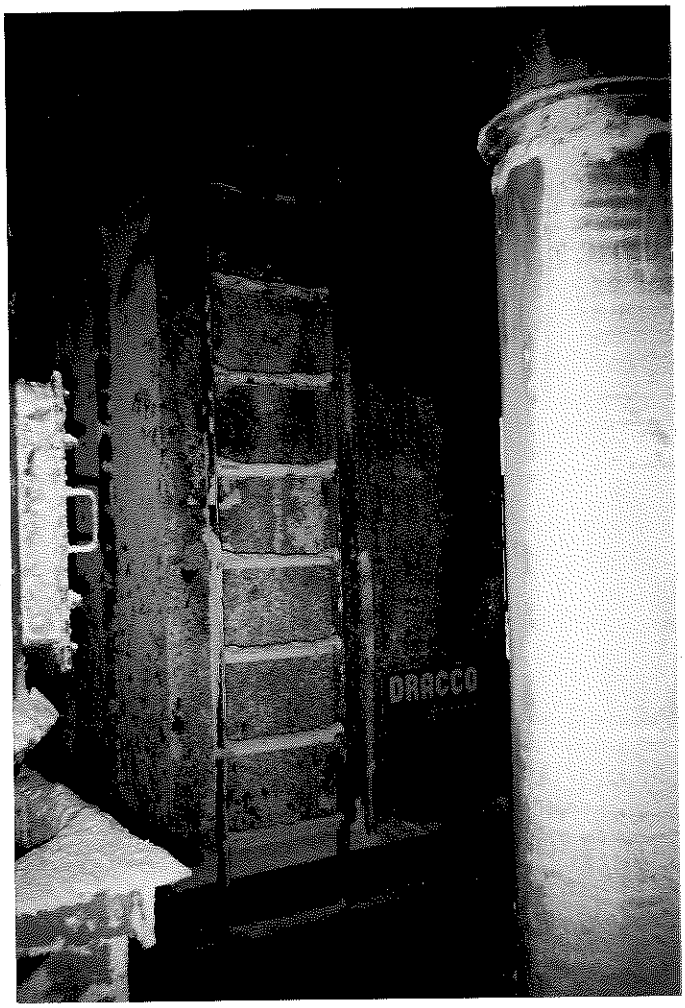
Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #1 (BH1) in the STPP-C building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1310 Film: Kodak ASA 200
Logbook Photo #: 1 Direction: West

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #2 (BH2) southwest corner of the STPP-C building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1313 Film: Kodak ASA 200
Logbook Photo #: 2 Direction: Southwest

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #3 (BH3), 6th floor of STPP-C building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1315 Film: Kodak ASA 200
Logbook Photo #: 3 Direction: East



Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #4 (BH4), 6th floor of STPP-C building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1315 Film: Kodak ASA 200
Logbook Photo #: 4 Direction: West

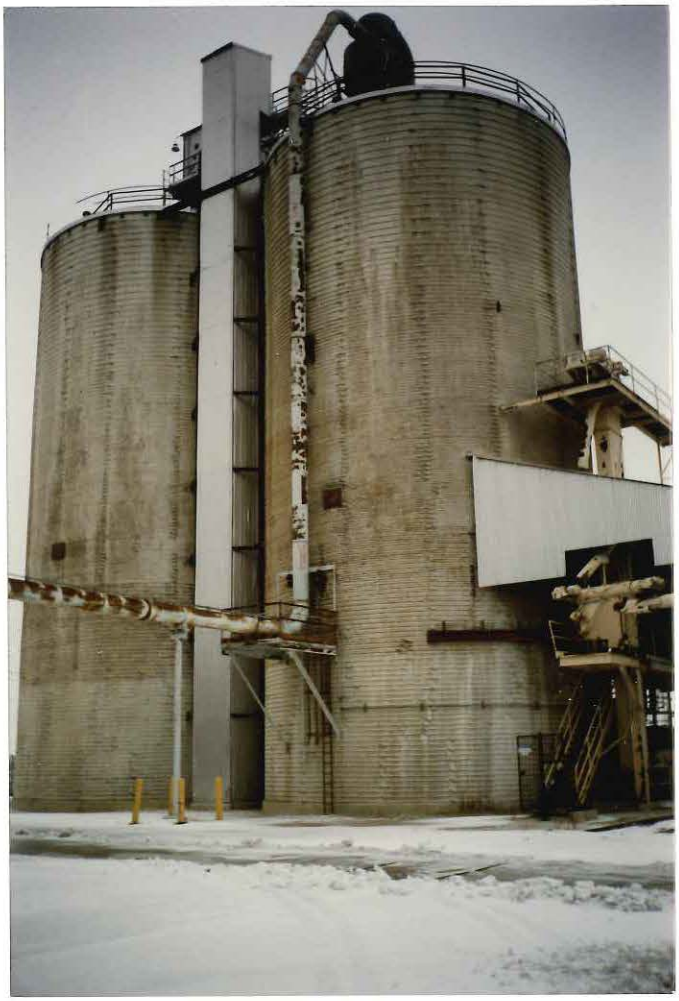


Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #5 (BH5), 6th floor of STPP-C building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1315 Film: Kodak ASA 200
Logbook Photo #: 5 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #6 (BH6) in STPP-B building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1325 Film: Kodak ASA 200
Logbook Photo #: 6 Direction: South

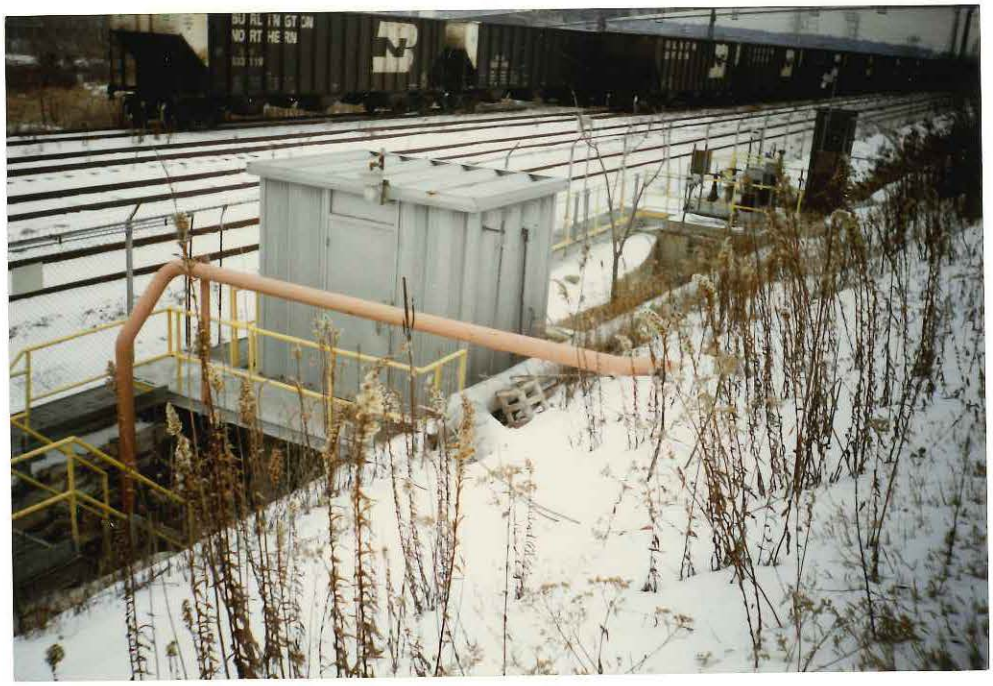
Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #7 (BH7) in STPP-B building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1325 Film: Kodak ASA 200
Logbook Photo #: 7 Direction: East

Location: Olin Joliet Facility
Subject: SWMU #6 Hoppers and augers for BH7 which are part of the reclaim system
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1325 Film: Kodak ASA 200
Logbook Photo #: 8 Direction: East



Location: Olin Joliet Facility
Subject: SWMU #6 80' Silos north of the STPP-B building. Baghouse #8 (BH8) was located on top of the silos.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1335 Film: Kodak ASA 200
Logbook Photo #: 9 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #9 Sewage treatment plant (inactive)
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1340 Film: Kodak ASA 200
Logbook Photo #: 10 Direction: South



Location: Olin Joliet Facility
Subject: Main outfall for the facility. Discharge from the SWTF and Sanitary Plant joined here prior to entering the Des Plaines River. Orange pipe is from SWMU #9.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1345 Film: Kodak ASA 200
Logbook Photo #: 11 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #9 (BH9) on 5th floor of STPP-A building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1348 Film: Kodak ASA 200
Logbook Photo #: 12 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #10 (BH10) on 5th floor of STPP-A building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1348 Film: Kodak ASA 200
Logbook Photo #: 13 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #1 Present oil storage area inside the Maintenance & Warehouse building. At present both virgin and used oils are stored here.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1357 Film: Kodak ASA 200
Logbook Photo #: 14 Direction: Northwest

Location: Olin Joliet Facility
Subject: Former paint storage area inside the Maintenance & Warehouse building.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1400 Film: Kodak ASA 200
Logbook Photo #: 15 Direction: Southwest

Location: Olin Joliet Facility
Subject: SWMU #2 Carboys used for transporting acid when the plant was in operation stored in the Maintenance & Warehouse building. All containers have been cleaned and are empty.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1403 Film: Kodak ASA 200
Logbook Photo #: 16 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #6 Three kinds of baghouse bags used in the plant. Nomex, Dacron, and polyester from left to right.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1405 Film: Kodak ASA 200
Logbook Photo #: 17 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #5 Parts washer in the Maintenance & Warehouse building.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1410 Film: Kodak ASA 200
Logbook Photo #: 18 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #1 Waste oil tank located in the old TEOX building. Currently empty.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1415 Film: Kodak ASA 200
Logbook Photo #: 19 Direction: South~~east~~ west

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #11 (BH11) for the soda ash silo in the MSP & DSP building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1425 Film: Kodak ASA 200
Logbook Photo #: 20 Direction: Southwest

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #12 (BH12) for the soda ash silo in the MSP & DSP building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1426 Film: Kodak ASA 200
Logbook Photo #: 21 Direction: Southwest

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #13 (BH13) located on the roof of the MSP & DSP building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1430 Film: Kodak ASA 200
Logbook Photo #: 22 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #14 (BH14) located in the SSF building for sodium silica fluoride
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1432 Film: Kodak ASA 200
Logbook Photo #: 23 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #15 (BH15) located in the TSP building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1435 Film: Kodak ASA 200
Logbook Photo #: 24 Direction: West

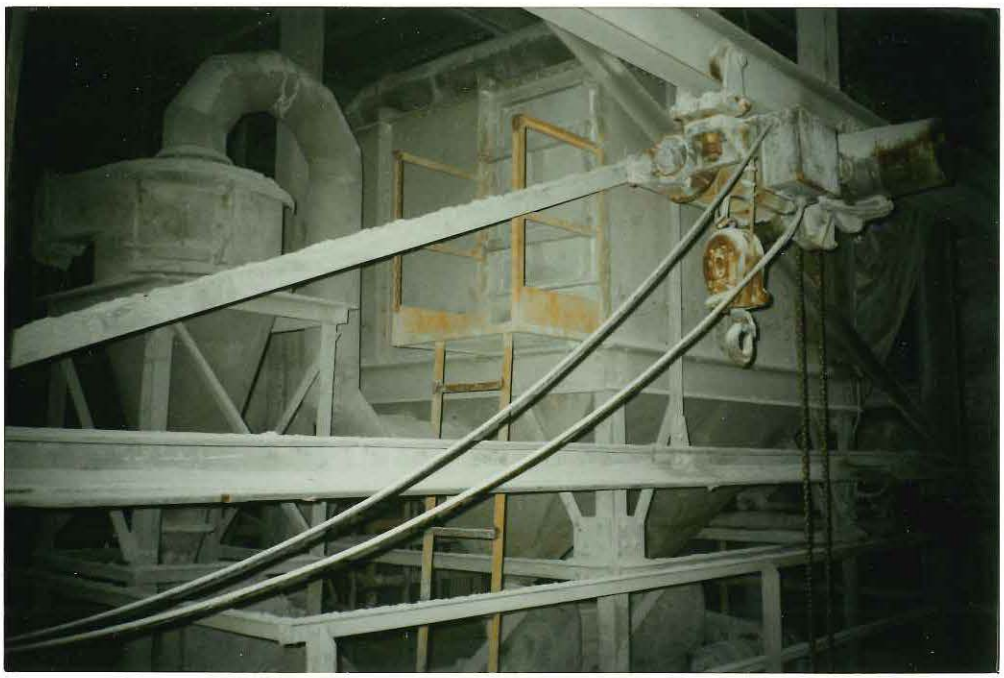
Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #16 (BH16) located on the 2nd floor in the TSP building. White material is phosphates that have escaped the baghouse.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1437 Film: Kodak ASA 200
Logbook Photo #: 25 Direction: West

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #17 (BH17) located in the MSP & SAPP building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1440 Film: Kodak ASA 200
Logbook Photo #: 26 Direction: East

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #18 (BH18) SAPP baghouse dust collector and bags, located in the MSP & SAPP building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1443 Film: Kodak ASA 200
Logbook Photo #: 27 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #19 (BH19) located in the Department 40/ Phosphoric Acid Plant.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1450 Film: Kodak ASA 200
Logbook Photo #: 28 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #20 (BH20) located on the 1st floor of the High Grade Fertilizer building.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1455 Film: Kodak ASA 200
Logbook Photo #: 29 Direction: South



Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #21 (BH21) located on the 2nd floor of the High Grade Fertilizer building.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1456 Film: Kodak ASA 200
Logbook Photo #: 30 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #22 (BH22) located on top of the Soda Ash & Rock Silos
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1507 Film: Kodak ASA 200
Logbook Photo #: 31 Direction: South

Location: Olin Joliet Facility
Subject: SWMU #6 Baghouse #23 (BH23) located on top of the Soda Ash & Rock Silos
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1507 Film: Kodak ASA 200
Logbook Photo #: 32 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #8 - 20' x 26' concrete storage pad.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1510 Film: Kodak ASA 200
Logbook Photo #: 33 Direction: South

Location: Olin Joliet Facility
Subject: AOC #1 North pond for surface water runoff. Adjacent Commonwealth Edison plant is in background.
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1515 Film: Kodak ASA 200
Logbook Photo #: 34 Direction: North

Location: Olin Joliet Facility
Subject: SWMU #4 PCB Transformer & Storage Area showing interior of the building and transfer pans
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1515 Film: Kodak ASA 200
Logbook Photo #: 35 Direction: Northeast

Location: Olin Joliet Facility
Subject: SWMU #4 PCB Transformer & Storage Area showing exterior of the building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1515 Film: Kodak ASA 200
Logbook Photo #: 36 Direction: Northeast

Location: Olin Joliet Facility
Subject: SWMU #7 120' x 18' storage area (foreground)
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1522 Film: Kodak ASA 200
Logbook Photo #: 37 Direction: West

Location: Olin Joliet Facility
Subject: AOC #1 South pond for storm water runoff
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1523 Film: Kodak ASA 200
Logbook Photo #: 38 Direction: South

Location: Olin Joliet Facility
Subject: SWMU # 3 Lab Pack Storage Area showing interior of the storage closet
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1525 Film: Kodak ASA 200
Logbook Photo #: 39 Direction: West

Location: Olin Joliet Facility
Subject: SWMU # 2 Showing drum cleaning area inside DSP Filtration building
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1545 Film: Kodak ASA 200
Logbook Photo #: 40 Direction: Southeast

Location: Olin Joliet Facility
Subject: AOC #3 Gypsum pile and the associated piping
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1604 Film: Kodak ASA 200
Logbook Photo #: 41 Direction: Southwest

Location: Olin Joliet Facility
Subject: SWMU #11 Storm Water Treatment Facility; Clarifier in foreground and lime tank in background
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1607 Film: Kodak ASA 200
Logbook Photo #: 42 Direction: Northeast

Location: Olin Joliet Facility
Subject: SWMU #11 Sulfuric acid tank at the SWTF
Photographer: Tim Temple (M&E)
Camera: Vivitar 35C1 Witness: Joe Carroll (Olin)
Date: 20 January 1993 Time: 1610 Film: Kodak ASA 200
Logbook Photo #: 43 Direction: East

Appendix B

APPENDIX B

VISUAL SITE INSPECTION FIELD NOTES

CONTENTS

REFERENCE	DATE

OLIN - JOLIET 20 JAN. 1993

People present for introductory visit SWTFs + AOCs.

Vicki Ray - Olin Corp.
Joe Carroll - Olin Corp.
George Thompson - Olin Corp.
Tim Temple - M+E
Jeff Miller - M+E

Meeting began at 0900 at the Olin Facility in Joliet. Facility is currently mothballed during an ownership transfer. Only a skeleton staff of employees are at the facility. Their primary objective is to operate the Storm Water Treatment Facility (SWTF) and perform maintenance upkeep of the Facility. (12 employees)

Facility hasn't handled haz waste since 1991. Were a small quantity generator

1992 + 1993 Olin will file with U.S. EPA as a large quantity generator because of mothballing

Jeff Miller 1-20-93

of the plant. Most of the waste generated is lab packs and used oil, and a majority of these materials are virgin products.

SWMU #1 Waste Oil Tank

- Was closed Aug. 1991
- The last shipment was 5500-6500 gallons to Safety Klean for energy recovery
- Over 80% of waste shipped following shutdown was oil
- Tank size is 8000-10,000 gallons
- Waste oil was generated from pumps, gear reducers, forklifts etc.
- Waste oil was sent to Brookside originally, but recent shipments have gone to Safety-Klean for energy recovery
- Olin will provide manifests + analysis of waste oil

Jeffrey D Mill 1-20-93

SWMU #2 Empty Drum Storage

- Virgin material drums when empty were washed and stored prior to shipping.
- Washing & storing was done at Building 55
- All rinse water went to the process recycle water system.

SWMU #3 Lab Packs

- Materials were stored on the 2nd floor of Building 2 in the process tech area.
- SWMU was cleaned out no later than July 1991
- The unit contained lab chemicals, reagents
- All materials were left in their original bottles and packed in chem-dry in 55 gallon drums prior to shipping
- Olin will supply waste manifests.

Jeffrey D Mell 1-20-93

SWMU #4 PCB Contaminated Transformers & Oil

- Transformers & motors were taken to a small out building where oil was drained out
- Closure of the unit & final paperwork was done in 1987
- Olin will provide manifests
- All transformers were removed or replenished with non-PCB material

SWMU #5 Spent Solvents

- Unit closed in Dec 1992
- Transported by Olin-Waste management
- Unit had limited storage space plus a 55 gallon drum located some times
- All waste transported within 90 days
- Olin will provide manifests
- Shipments included paint waste & lab waste painting supplies
- Wastes included - 1,1,1 trichloroethane, methylene chloride, carbon tet & other

1-20-93

SWMU #6 BAGHOUSES & BAGS

- Baghouses & bags accumulated phosphate dust & materials from production line for reuse.
- Waste bags sent to regular garbage as non-hazardous waste.
- Bags were replaced ±3/year
- Each building has dust collectors. At least 12

SWMU #7 HAZ WASTE STORAGE PAD
120' x 18'

- Originally listed in case storage was needed.
- No waste ever stored here

SWMU #8 Haz waste Storage Pad
20' x 26'

- Olin has no records that this pad was ever used. However, EPA files state that at one time lab parts & mercury contaminated clothing were located here. Olin could not confirm nor deny this.

[signature] 1-20-93

SWMU #9 Sanitary Sewage Treatment Facility & Sludge
- Closed in Oct. 1991 & demolished.
- Facility now on septic system checked by Will County
- SSTF was a continuous flow system using bugs & aerators to clean water plus chlorine which was added prior to discharge.
- No activated sludge
- All sludge was sent to the Elwood Sanitary Sewage Plant

SWMU #10 PHOSPHATE PONDS
3 TOTAL RETENTION PONDS (TRP)
TRP 1 - 35 acres built in ~~[illegible]~~ 1970 (1-20-93 JDM)
as a total retention pond for any byproducts in process water & manufacturing
Permitted as an inorganic holding reservoir
Water pumped to gypsum pile from here. H_2O filters through pile & is treated prior to discharge.
TRP 2 - 231 acres sodium phosphate pond
Presently permitted for fertilizer sales and is being mined for phosphates.

[illegible signature] 1-20-93

TRP 2A – ~7 acres SWTF sludge is pumped here. Contains Tricalcium phosphate sludge; may be used as a fertilizer supplement. Is being sold as such.

- Olin may soon sell sludge from TRP 1 as a fertilizer supplement

SWMU #11 Storm Water Treatment Facility (SWTF)

- Treats stormwater runoff; water from phosphate ponds, gyp pile, wet grind.
- Treat water with sulfuric acid & lime to adjust pH & precipitate solids from water. Sulfuric acid tank at the plant is ~6000 gallons.

1-20-93

AOC #1 STORM WATER RUNOFF PONDS
North, South & West
South: North pond serve the east side of the plant. The south pond drains to the north pond. North pond has two out falls – 1) to DesPlaines 2) to West Pond. Discharge to River from north pond is tested 1/shift. Discharge can be sent to the west pond for treatment. All west pond water is treated by SWTF prior to discharge to DesPlaines River

AOC #2 CLEAN SOLVENT STORAGE
- Unit is located in the general warehouse and contained solvents, paints, turpentine, etc.

AOC #3 Gypsum Pile
- 200 acre gyp pile built in 1959 as a result of phosphoric acid plant. By applying sulfuric acid to gyp pile creates phosphoric acid
- Now water is placed on pile to keep it wet & provide stability. Also used to provide overflow management

Jeffrey D Miller 1-20-93

In the storm water management system
Water applied to pile is treated by SWTF

AOC # 4-12

Various tanks & materials in a large concrete
& earth. Tanks contained the following
materials:

#4 = sodium hydroxide
#5 = Phosphoric Acid
#6 = Fuel Oil
#7 = Nitric Acid
#8 = Muriatic Acid
#9 = Sulphur dioxide/chlorine in 1 ton cylinders
#10 = Chlorine (in railroad tank cars)
#11 = Sulfuric Acid
#12 = Sodium hypochlorite

All tanks were empty at this time
of the VSI

* At one time there was a hydrofluoric acid
plant at the facility but it was dismantled
in the mid 70's and all buildings & tanks have
been removed

Jeffrey D Mills 1-20-93

Lunch Break from 11:45-12:45

PHOTO LOG

Taken during inspection of the facility ~1300

Weather: Cloudy cold ~33°F

Personnel: Joe Carroll - Olin

Tom Temple - M&K - photographer

Jeff Miller - M&K

Photo #1 in Sodium Tripolyphosphate Bldg C. (STPP-C) (note dust on girders)

SWMU #6 2-1-93 JDM

Bag house #1 on 5th floor of STPP-C Facing west 1310

Photo #2 Baghouse #2 just outside STPP-C at ~ 5th floor level

SWMU #6 2-1-93 JDM

Facing Southwest 1313

Photo #3 Baghouse #3 on 6th Floor of STPP-C Facing East 1315

SWMU #6 2-1-93 JDM

Photo #4 Baghouse #4 on 6th Floor of STPP-C Facing West 1315

SWMU #6 2-1-93 JDM

Photo #5 Baghouse #5 on 4th Floor of STPP-C Facing West 1315

SWMU #6 2-1-93 JDM

Jeffrey D Miller 1-20-93

Photo #6 in Sodium Tripolyphosphate Bld B
SWMU #6 2-1-93 JDM — Baghouse #6 facing South 1325

Photo #7 Baghouse #7 in STPP-B
SWMU #6 2-1-93 JDM — Facing East 1325

Photo #8 Baghouse #7 Hopper & auger used
SWMU #6 2-1-93 JDM — in reclaim system Facing East
1325

Photo #9 Baghouse #8 on top of STPP
SWMU #6 2-1-93 JDM — silos north of STPP-B Silos
are ≈ 80' tall. Baghouse is in
shack on top of the silos in
top left-center of photo. Facing
North 1335

PHOTO #10 SWMU #9 SANITARY SEWAGE TREATMENT
PLANT
Just north of STPP silos
Unit is inactive & has been cleaned out
Facing south 1340

[signature] 1-20-93

Photo #11 Outfall for the facility. Discharge from SWTF & SSTF join here prior to discharge to the Des Plaines River. Orange pipe is from SWMU #9 1345

Photo #12 SWMU #6 2-1-93 JDM Baghouse #9 on 5th Floor of STPP-A Bld. Facing: South 1348

Photo #13 SWMU #6 2-1-93 JDM Baghouse #10 on 5th Floor of STPP-A. Facing: South 1348

Photo #14 Present oil storage area inside the general warehouse. Both waste & used oils are stored here now that SWMU #1 oil tank is closed (Is this now SWMU #4) Facing Northwest 1357

Photo #15 Former Paint storage area inside the general warehouse building (AOC #2) Facing Southwest 1400

JDM 1-20-93

PHOTO #16 At southeast corner of general warehouse are carboys & containers used to transport acids when plant was in operation. All containers are clean & empty.
FACING: South 1403

PHOTO #17 In general warehouse are virgin baghouse bags used with some of the baghouses. 3 kinds were used. Nomex Dacron & polyester (left to right in photo) Bags are ~ 3 meters in length
FACING: South 1405

PHOTO #18 Along NE wall of the general warehouse is a parts washer that generated some spent solvents for SWMU#5 Parts washer was empty & clean at time of inspection
FACING South 1410

PHOTO #19 SWMU #1 Waste oil tank located in the old TEOX building. Currently empty; marked to hold only used oil
FACING Southwest 1415

[signature] Smith 1-20-93

PHOTO #20 SWMU #6 2-1-93 JDM	Background #11 for the Soil Ash in the MSP/DSP building. MSP = monosodium phosphate, DSP = disodium phosphate FACING: Southwest 1425
PHOTO #21 SWMU #6 2-1-93 JDM	Background #12 for the Soil Ash in the MSP/DSP building FACING: Southwest 1426
PHOTO #22 SWMU #6 2-1-93 JDM	Background #13 located to the east of the MSP/DSP building. Located at left-center of photo in orchard FACING: North 1430
PHOTO #23 SWMU #6 2-1-93 JDM	Background #14 located in the sodium silicofluoride silo (SSF) FACING: North 1432
PHOTO #24 SWMU #6 2-1-93 JDM	Background #15 located in the Trisodium 30m phosphate silo (TSP) FACING: West 1435

JDMills 1-20-93

PHOTO #25 SWMU #6 2-1-93 JDM	Baghouse #16 on 2nd Floor of the TSP building. White powder material in foreground is trisodium phosphate that has spilled from the baghouse. FACING WEST 1437
PHOTO #26 SWMU #6 2-1-93 JDM	Baghouse #17 located in the MSP/SAPP building (MSP = monosodium phosphate, SAPP = sodium acid pyrophosphate) * Note sign on wall stating MSP Conveyance area. FACING East 1440
PHOTO #27 SWMU #6 2-1-93 JDM	Baghouse #18 for the SAPP baghouse dust collector showing baghouse bags & reclaim system. FACING: North 1442
PHOTO #28 SWMU #6 2-1-93 JDM	Baghouse #19 in Dept. 40/phosphoric Acid Plant. FACING North 1450
PHOTO #29 SWMU #6 2-1-93 JDM	Baghouse #20 on 1st Floor of the High Grade Fertilizer Bldg. Facing South 1455

JDM 1-20-93

PHOTO #30 SWMU #6 2-1-93 JDM	Bayhouse #21 on 2nd Floor of HEAF Bld. Facing South 1450
PHOTO #31 SWMU #6 2-1-93 JDM	Bayhouse #22 located on top of the Soda Ash Rock silos Facing South 1507
PHOTO #32 SWMU #6 2-1-93 JDM	Bayhouse #23 on top of Soda Ash Rock silos Facing: North 1502
PHOTO #33	SWMU #8 20'x20' concrete storage pad Note sulfuric acid tanks in background. Facing South 1510
PHOTO #34	ACC #1 North Pond of Storm Water Run off Pond. North Cooling Tower Plant in background Facing North 1515
PHOTO #35	SWMU #4 PCB transformer storage showing interior pond. Facing NE 1515

J.D. Smith
1-20-93

PHOTO #36 Wood building i SWMU #4
Note fence and danger sign
FACING NE 1515

PHOTO #37 SWMU #7 120' x 18' storage area
in foreground (cement stocking out of
sand) Facing west 1522

NEW ROLL OF FILM

PHOTO #38 AOC #1 South pond for runoff
FACING South 1523

PHOTO #39 SWMU #3 LAB PACK STORAGE AREA
Photo shows empty interior of closet
Facing west 1525

PHOTO #40 SWMU #2 Drum cleaning area inside
the DSF filtration building
* Note staining on walls & floor.
Facing Southeast 1545

PHOTO #41 AOC #3 GYP Pile & associated
piping - (Piping supplies dike water)
Facing SW 1604

[signature] 1-20-93

PHOTO #42 SWMU #11 Storm Water Treatment Facility (SWTF) Clarifiers in foreground and background left. Lime tank in center of picture. West pond is just left of picture.
FACING NE 1607

PHOTO #43 SWMU #11 with AOC #11 associated to SWTF
Facing East 1610

Following the walkthrough at the facility. Again met with Vicki Ray of Olin. She provided waste manifests and analysis requested at the morning session

M:E personnel off-site at 1700

(Tom, & met for Breakfast at 0730 to discuss the days activities)

[signature] 1-20-93

Appendix C

APPENDIX C

LABORATORY ANALYSES

Drew Industrial Division/
Drew Amerold® Marine Division
ASHLAND CHEMICAL, INC. SUBSIDIARY OF ASHLAND OIL, INC.
One Drew Plaza, Boonton, New Jersey 07005

KANSAS CITY, KS.
LABORATORY

ANALYTICAL REPORT

WATER SAMPLE

SAMPLE FROM

OLIN CORP-JOLIET
JOLIET WORKS
PATTERSON RD
JOLIET IL OI 60436

RFA NUMBER 52168 -2
DATE SAMPLED 04/16/92
DATE RECEIVED 04/22/92
DATE REPORTED 05/04/92
DREW REPRESENTATIVE
FREYMARK SCOTT

****

SAMPLE NUMBER 01

SAMPLE DESCRIPTION DIKE WATER

TEST DESCRIPTION	RESULTS
PH VALUE	2.7
P ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL HARDNESS (AS CACO3) MG/L	2,138.0
CALCIUM (AS CACO3) MG/L	1,428.0
MAGNESIUM (AS CACO3) MG/L	710.0
CHLORIDE (AS CL) MG/L	60.0
SULFATE (AS SO4) MG/L	3,870.0
SILICA (AS SIO2) MG/L	306.0
CONDUCTIVITY, MICROMHOS/CM	11,500.0
SODIUM (AS NA) MG/L	1,598.0
FLUORIDE (AS F) MG/L	423.0
TOTAL SOLUBLE INORGANIC PHOSPHATE, MG/L	9,780.0
SOLUBLE ORTHO PHOSPHATE (AS PO4) MG/L	9,780.0
SOLUBLE POLY PHOSPHATE (AS PO4) MG/L	0.0

Drew Industrial Division/
Drew Amerold® Marine Division
ASHLAND CHEMICAL, INC. SUBSIDIARY OF ASHLAND OIL, INC.
One Drew Plaza, Boonton, New Jersey 07005

KANSAS CITY, KS.
LABORATORY

ANALYTICAL REPORT

WATER SAMPLE

SAMPLE FROM

OLIN CORP-JOLIET
JOLIET WORKS
PATTERSON RD
JOLIET IL OI 60436

RFA NUMBER 52168 -2
DATE SAMPLED 04/16/92
DATE RECEIVED 04/22/92
DATE REPORTED 05/04/92
DREW REPRESENTATIVE
FREYMARK SCOTT

****

SAMPLE NUMBER 05

SAMPLE DESCRIPTION "A" AREA on top of gyp pile

TEST DESCRIPTION	RESULTS
PH VALUE	2.7
P ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL HARDNESS (AS CACO3) MG/L	2,174.0
CALCIUM (AS CACO3) MG/L	1,491.0
MAGNESIUM (AS CACO3) MG/L	683.0
CHLORIDE (AS CL) MG/L	58.0
SULFATE (AS SO4) MG/L	3,600.0
SILICA (AS SIO2) MG/L	176.0
CONDUCTIVITY, MICROMHOS/CM	10,760.0
SODIUM (AS NA) MG/L	1,384.0
FLUORIDE (AS F) MG/L	198.0
TOTAL SOLUBLE INORGANIC PHOSPHATE, MG/L	9,990.0
SOLUBLE ORTHO PHOSPHATE (AS PO4) MG/L	9,990.0
SOLUBLE POLY PHOSPHATE (AS PO4) MG/L	0.0

Drew Industrial Division/
Drew Amerold® Marine Division
ASHLAND CHEMICAL, INC. SUBSIDIARY OF ASHLAND OIL, INC.
One Drew Plaza, Boonton, New Jersey 07005

KANSAS CITY, KS.
LABORATORY

ANALYTICAL REPORT

WATER SAMPLE

SAMPLE FROM

OLIN CORP-JOLIET
JOLIET WORKS
PATTERSON RD
JOLIET IL OI 60436

RFA NUMBER 52168 -2
DATE SAMPLED 04/16/92
DATE RECEIVED 04/22/92
DATE REPORTED 05/04/92
DREW REPRESENTATIVE
FREYMARK SCOTT

****

SAMPLE NUMBER 06

SAMPLE DESCRIPTION WEST POND

TEST DESCRIPTION	RESULTS
PH VALUE	9.5
P ALKALINITY (AS CACO3) MG/L	53.0
TOTAL ALKALINITY (AS CACO3) MG/L	255.0
TOTAL HARDNESS (AS CACO3) MG/L	62.8
CALCIUM (AS CACO3) MG/L	8.4
MAGNESIUM (AS CACO3) MG/L	54.4
CHLORIDE (AS CL) MG/L	20.0
SULFATE (AS SO4) MG/L	450.0
SILICA (AS SIO2) MG/L	11.1
CONDUCTIVITY, MICROMHOS/CM	1,750.0
SODIUM (AS NA) MG/L	281.0
FLUORIDE (AS F) MG/L	2.2
TOTAL SOLUBLE INORGANIC PHOSPHATE, MG/L	93.8
SOLUBLE ORTHO PHOSPHATE (AS PO4) MG/L	93.8
SOLUBLE POLY PHOSPHATE (AS PO4) MG/L	0.0

Drew Industrial Division/
Drew Amerold® Marine Division
ASHLAND CHEMICAL, INC. SUBSIDIARY OF ASHLAND OIL, INC.
One Drew Plaza, Boonton, New Jersey 07005

KANSAS CITY, KS.
LABORATORY

ANALYTICAL REPORT

WATER SAMPLE

SAMPLE FROM

OLIN CORP-JOLIET
JOLIET WORKS
PATTERSON RD
JOLIET IL 0I 60436

RFA NUMBER 52168 -2
DATE SAMPLED 04/16/92
DATE RECEIVED 04/22/92
DATE REPORTED 05/04/92
DREW REPRESENTATIVE
FREYMARK SCOTT

****

SAMPLE NUMBER 03

SAMPLE DESCRIPTION TRP 1

TEST DESCRIPTION	RESULTS
PH VALUE	10.3
P ALKALINITY (AS CACO3) MG/L	2,175.0
TOTAL ALKALINITY (AS CACO3) MG/L	5,980.0
TOTAL HARDNESS (AS CACO3) MG/L	1.2
CALCIUM (AS CACO3) MG/L	0.5
MAGNESIUM (AS CACO3) MG/L	0.7
CHLORIDE (AS CL) MG/L	171.0
SULFATE (AS SO4) MG/L	3,150.0
SILICA (AS SIO2) MG/L	702.5
CONDUCTIVITY, MICROMHOS/CM	17,700.0
SODIUM (AS NA) MG/L	2,232.0
FLUORIDE (AS F) MG/L	1,080.0
TOTAL SOLUBLE INORGANIC PHOSPHATE, MG/L	1,790.0
SOLUBLE ORTHO PHOSPHATE (AS PO4) MG/L	1,788.0
SOLUBLE POLY PHOSPHATE (AS PO4) MG/L	2.0

Drew Industrial Division/
Drew Amerold® Marine Division
ASHLAND CHEMICAL, INC. SUBSIDIARY OF ASHLAND OIL, INC.
One Drew Plaza, Boonton, New Jersey 07005

KANSAS CITY, KS.
LABORATORY

ANALYTICAL REPORT

WATER SAMPLE

SAMPLE FROM

OLIN CORP-JOLIET
JOLIET WORKS
PATTERSON RD
JOLIET IL 0I 60436

RFA NUMBER 52168 -2
DATE SAMPLED 04/16/92
DATE RECEIVED 04/22/92
DATE REPORTED 05/04/92
DREW REPRESENTATIVE
FREYMARK SCOTT

****

SAMPLE NUMBER 04

SAMPLE DESCRIPTION "C" AREA on top of gyp pile

TEST DESCRIPTION	RESULTS
PH VALUE	3.4
P ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL HARDNESS (AS CACO3) MG/L	1,393.0
CALCIUM (AS CACO3) MG/L	980.0
MAGNESIUM (AS CACO3) MG/L	413.0
CHLORIDE (AS CL) MG/L	90.0
SULFATE (AS SO4) MG/L	9,180.0
SILICA (AS SIO2) MG/L	201.0
CONDUCTIVITY, MICROMHOS/CM	15,500.0
SODIUM (AS NA) MG/L	2,070.0
FLUORIDE (AS F) MG/L	180.0
TOTAL SOLUBLE INORGANIC PHOSPHATE, MG/L	4,825.0
SOLUBLE ORTHO PHOSPHATE (AS PO4) MG/L	4,825.0
SOLUBLE POLY PHOSPHATE (AS PO4) MG/L	0.0

Drew Industrial Division/
Drew Amerold® Marine Division
ASHLAND CHEMICAL, INC. SUBSIDIARY OF ASHLAND OIL, INC.
One Drew Plaza, Boonton, New Jersey 07005

KANSAS CITY, KS.
LABORATORY

ANALYTICAL REPORT

WATER SAMPLE

SAMPLE FROM

OLIN CORP-JOLIET
JOLIET WORKS
PATTERSON RD
JOLIET IL 0I 60436

RFA NUMBER 52168 -2
DATE SAMPLED 04/16/92
DATE RECEIVED 04/22/92
DATE REPORTED 05/04/92
DREW REPRESENTATIVE
FREYMARK SCOTT

****

SAMPLE NUMBER 02

SAMPLE DESCRIPTION NORTH POND

TEST DESCRIPTION	RESULTS
PH VALUE	7.9
P ALKALINITY (AS CACO3) MG/L	< 0.1
TOTAL ALKALINITY (AS CACO3) MG/L	273.0
TOTAL HARDNESS (AS CACO3) MG/L	576.5
CALCIUM (AS CACO3) MG/L	225.8
MAGNESIUM (AS CACO3) MG/L	350.7
CHLORIDE (AS CL) MG/L	20.0
SULFATE (AS SO4) MG/L	430.0
SILICA (AS SIO2) MG/L	4.9
CONDUCTIVITY, MICROMHOS/CM	1,270.0
SODIUM (AS NA) MG/L	27.1
FLUORIDE (AS F) MG/L	0.1
TOTAL SOLUBLE INORGANIC PHOSPHATE, MG/L	13.3
SOLUBLE ORTHO PHOSPHATE (AS PO4) MG/L	13.1
SOLUBLE POLY PHOSPHATE (AS PO4) MG/L	0.2

Appendix D

APPENDIX D

WASTE MANIFESTS FOR 1991 & 1992

AND SPECIAL WASTE.

State Form LPC 62 8/81 IL532-0610

SPECIAL

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH.

EPA Form 8700-22 (Rev. 6-89) Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No. ILD 049 809 379 — Manifest Document No. 91005

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: OLIN, PATTERSON AND LARAWAY RDS, JOLIET, IL 60436 — Location If Different:

4. Generator's Phone (815) 727-4901

A. Illinois Manifest Document Number IL4208623 MANIFEST FEE PAID

B. Illinois Generator's ID 1970450010

5. Transporter 1 Company Name: METROPOLITAN ENVIRONMENTAL

6. US EPA ID Number: INT 190010374

C. Illinois Transporter's ID

D. 419 586-6638 Transporter's Phone

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. Illinois Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address: SYSTECH, LIMEDALE RD., GREENCASTLE, IN. 46135

10. US EPA ID Number: IND 006 419 212

G. Illinois Facility's ID N/A

H. Facility's Phone (317) 653-2606

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. NON-HAZARDOUS USED OIL	001	TT	02[illegible]	1	EPA HW Number XX N/A; Authorization Number N/A
b.					EPA HW Number XX; Authorization Number
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Descriptions for Materials Listed Above: SYSTECH AUTHORIZATION # AA14994 — OFF SPEC USED OIL

K. Handling Codes for Wastes Listed Above In Item # 14: 1 = Gallons (circled) 2 = Cubic Yards

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: CHRIS J. PSIHOS — Signature: [signature] — Date (Month Day Year): 04 26 91

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: William J. Nelson — Signature: [signature] — Date (Month Day Year): 04 26 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name — Signature — Date (Month Day Year)

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: SHERRY MACKEY — Signature: Sherry Mackey — Date (Month Day Year): 04 29 91

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

2200 CHURCHILL ROAD, SPRINGFIELD, ILLINOIS 62706 (217) 782-6761

IL532-0610
LPC 62 8/81

NON-HAZARDOUS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

EPA Form 8700-22 (3-84)

Form Approved. OMB No. 2050-0039. Expires 9-30-88

UNIFORM ~~HAZARDOUS~~ WASTE MANIFEST

1. Generator's US EPA ID No.: ILD 049 809 379 | Manifest Document No.: 91603

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
OLIN CHEMICALS
PATTERSON + LARAWAY ROADS
JOLIET, IL. 60434

4. Generator's Phone (815) 727 - 4901

A. Illinois Manifest Document Number: IL 1684760

B. Illinois Generator's ID: 1970415901 0

5. Transporter 1 Company Name: METROPOLITAN ENVIRONMENTAL

6. US EPA ID Number: INT 190010 397

C. Illinois Tranporter's ID: 11726

D. (419) 586 6638 Transporter's Phone

7. Transporter 2 Company Name:

8. US EPA ID Number:

E. Illinois Transporter's ID:

F. Transporter's Phone

9. Designated Facility Name and Site Address
SYSTECH ENVIRONMENTAL
LIMEDALE ROAD
GREENCASTLE, IN. 46135

10. US EPA ID Number: IND 006 419 212

G. Illinois Facility's ID: N/A

H. Facility's Phone: (317) 653-2606

	11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	HM	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a.	NON - HAZARDOUS USED OIL (WASTE OIL)		001	TT	8,2,8,3,2	1	EPA HW Number: XX N/A; Authorization Number: N/A
b.							EPA HW Number: XX; Authorization Number:
c.							EPA HW Number: XX; Authorization Number:
d.							EPA HW Number: XX; Authorization Number:

J. Additional Descriptions for Materials Listed Above
SYSTECH AUTHORIZATION # AA 14994
OFF SPEC USED OIL

K. Handling Codes for Wastes Listed Above In Item #14
1 = Gallons 2 = Cubic Yard

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations, and Illinois regulations.

Unless I am a small quantity generator who has been exempted by statute or regulation from the duty to make a waste minimization certification under Section 3002(b) of RCRA, I also certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and I have selected the method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment.

GENERATOR

Printed/Typed Name: CHRIS J. PSIHOS | Signature | Date: Month Day Year 04 26 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: DAVID E. WENNING | Signature: David E. Wenning | Date: Month Day Year 04 26 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: THOMAS N. FOWLER | Signature: Thomas N. Fowler | Date: Month Day Ye 04 27 91

IN ILLINOIS: 217 / 782-3637 "24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS" OUTSIDE ILLINOIS: 800 / 424-8802 or 202 / 426-2675

DISTRIBUTION: PART - 1 GENERATOR PART - 2 IEPA PART - 3 FACILITY PART - 4 TRANSPORTER PART - 5 IEPA PART - 6 GENERATOR

REV. #6

GENERATOR COPY – PART 1- DO NOT REMOVE PART 1 FROM SET UNTIL COMPLETED.

This Agency is authorized to require, pursuant to Illinois Revised Statutes, 1983, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

STATE OF ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE.

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH. **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I L D 0 4 9 8 0 9 3 7 9 — Manifest Document No. 0 1 7 1 0

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Olin Chemicals
Patterson Road - Post Office Box 2219
Joliet, Illinois 60433

Location If Different:

4. Generator's Phone (815) 740-5496

A. Illinois Manifest Document Number: IL 4467699 MANIFEST FEE PAID

B. Illinois Generator's ID: 1 1 9 7 0 4 5 0 0 0 1

5. Transporter 1 Company Name: Chemical Waste Management-TSD
6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1
C. Illinois Transporter's ID: 0 0 7 5
D. (708) 396-1050 Transporter's Phone

7. Transporter 2 Company Name: Chemical Waste Management-Alsip
8. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1
E. Illinois Transporter's ID: 0 0 7 5
F. (708) 396-1060 Transporter's Phone

9. Designated Facility Name and Site Address
Trade Waste Incineration
#7 Mobile Drive
Sauget, Illinois 62201
10. US EPA ID Number: I L D 0 9 8 6 4 2 4 2 4
G. Illinois Facility's ID: 1 6 3 1 2 1 0 0 0 9
H. Facility's Phone (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Flammable Liquid, nos. Flammable Liquid UN1993 LAB V93645	0.0.8	D.F	0 0 1 6 0	G	EPA HW Number: X X D 0 0 1 Authorization Number: 0 1 9 0 0 0 0 1 1
b. Waste Oxidizer, nos. Oxidizer UN1479 LAB V93645	0.0.5	D.F	0 0 1 0 0	G	EPA HW Number: X X D 0 0 1 Authorization Number: 0 1 9 0 0 0 0 1 1
c. Waste Acid, Liquid, nos Corrosive Material NA1760 LAB V93645	0.0.2	D.F	0 0 0 4 0	G	EPA HW Number: X X D 0 0 2 Authorization Number: 0 1 9 0 0 0 0 1 1
d. Waste Alkaline, Liquid, nos Corrosive Material NA1719 LAB V93645	0.0.2	D.F	0 0 0 4 0	G	EPA HW Number: X X D 0 0 2 Authorization Number: 0 1 9 0 0 0 0 1 1

J. Additional Descriptions for Materials Listed Above: All are labpacks
11a) OCT 7-13,19 D005, U003, F005, U196, U239, P022
11b) OCT 1-3,5-6 D007, D008, D005, P009, P011, P119, D004, D004, P010
11c) OCT 17-18 D004, D004,
11d) OCT 4, 16 D005,

K. Handling Codes for Wastes Listed Above In Item # 14
1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information
THIS MATERIAL MUST BE DISPATCHED NO LATER THAN 10/7/91 (DAY MO. YR.)
IN EVENT OF AN EMERGENCY Contact Chemical Waste Management, Inc. At (205) [illegible]
SIGNATURE

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Date (Month Day Year)
Brian Finnegan		0 7 0 1 9 1

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
ROBERT L. KANN JR.		0 7 0 1 9 1

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
MAURICE J. TANIS		0 7 1 0 9 1

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
Teresa Carey		0 7 1 1 9 1

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

1-7864

In case of a spill call the Illinois Office of Emergency Response at 217/782-3637 and the National Response Center at 800/424-8802 or 202/426-2675.

STATE OF ILLINOIS — ENVIRONMENTAL PROTECTION AGENCY · DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 — SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE.

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH. **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. L D 0 4 9 8 0 9 3 7 9 — Manifest Document No. 1 7 1 1

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address / Location If Different:
Olin Chemicals
Patterson Road - Post Office Box 2219
Joliet, Illinois 60433

4. Generator's Phone (815) 740-5496

A. Illinois Manifest Document Number: IL 4467700 MANIFEST FEE PAID

B. Illinois Generator's ID: I L 9 7 0 1 4 5 0 0 0 0 1

5. Transporter 1 Company Name: Chemical Waste Management-TSD
6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1
C. Illinois Transporter's ID: I L 0 0 1 7 5
D. (708) 396-1050 Transporter's Phone

7. Transporter 2 Company Name: Chemical Waste Management-Alsip
8. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1
E. Illinois Transporter's ID: I L 0 0 1 7 5
F. (708) 396-1060 Transporter's Phone

9. Designated Facility Name and Site Address:
Trade Waste Incineration
#7 Mobile Drive
Sauget, Illinois 62201
10. US EPA ID Number: I L D 0 9 8 6 4 2 4 2 4
G. Illinois Facility's ID: I L 1 6 3 1 2 1 1 0 0 0 1 9
H. Facility's Phone: 618) 271-2804

GENERATOR

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste Oxidizer, nos Oxidizer UN1479 LAB V9 3645	0.0.1	D M	0 0 0 5 5	G	EPA HW Number: X X I D 0 1 0 1 1 Authorization Number: 0 1 9 1 0 1 0 1 0 1 1
b. Waste Acid, Liquid, nos (Poison Inhalation Hazard) Corrosive Material NA 1719 LAB V9 3645	0.0.2	D F	0 0 0 2 5	G	EPA HW Number: X X I D 0 1 0 1 0 2 Authorization Number: 0 1 9 1 0 1 0 1 0 1 1
c. Waste Poison B Liquid, nos (Arsenic, Lead, and Mercury Compounds, p-nitrophenol, Ammonium metavanadate, Brucine, 2,4 Dinitrophenol) Poison B UN 2810 LAB V9 3645	0.0.1	D M	0 0 0 5 5	G	EPA HW Number: X X P I 1 1 9 Authorization Number: 0 1 9 1 0 1 0 1 0 1 1
d. Waste Poison B Liquid, nos (Potassium Cyanide, Phenol, Lead compounds) Poison B UN 2810 DOT-E 9723 LAB V9 3645	0.0.1	D F	0 0 0 2 0	G	EPA HW Number: X X P I 0 1 9 8 Authorization Number: 0 1 9 1 0 1 0 1 0 1 1

J. Additional Descriptions for Materials Listed Above: All are Lab Packs
11a) OCT 15 P119, D007, D005, P120,
11b) OCT 20-21 D003
11c) OCT 14 U170, P012, D005, D008, D009, P011, P018, U144, P048
11d) OCT 24 D008, U144, U188

K. Handling Codes for Wastes Listed Above In Item # 14
1 = Gallons 2 = Cubic Yards

IN EVENT OF AN EMERGENCY Contact Chemical Waste Management, Inc. At (800) [illegible]

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRIAN FINNEGAN — Signature: Brian Finnegan — Date (Month Day Year): 07 01 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: ROBERT L. KANN JR. — Signature: Robert L. Kann Jr. — Date (Month Day Year): 07 01 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Maurice J. Tanis — Signature: Maurice J. Tanis — Date (Month Day Year): 07 11 91

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Teresa Carey — Signature: Teresa Carey — Date (Month Day Year): 07 12 91

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

1-78164

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE.

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH. **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. L D 0 4 9 8 0 9 3 7 9 9 — Manifest Document No. 7112

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Olin Chemicals
Patterson Road - Post Office Box 2219
Joliet, Illinois 60433

Location if Different:

4. Generator's Phone(815) 740-5496

A. Illinois Manifest Document Number IL 4467702 MANIFEST FEE PAID

B. Illinois Generator's ID 1 9 7 0 4 5 0 0 0 1

5. Transporter 1 Company Name: Chemical Waste Management-TSD — 6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

C. Illinois Transporter's ID 0 0 7 5

D. (708) 396-1050 Transporter's Phone

7. Transporter 2 Company Name: Chemical Waste Management-Alsip — 8. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

E. Illinois Transporter's ID 0 0 7 5

F. (708) 396-1060 Transporter's Phone

9. Designated Facility Name and Site Address
Trade Waste Incineration
#7 Mobile Drive
Sauget, Illinois 62201

10. US EPA ID Number: I L D 0 9 8 6 4 2 4 2 4

G. Illinois Facility's ID 1 6 3 1 2 1 0 0 0 9

H. Facility's Phone (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Acid Liquid, nos Corrosive Material NA1760 LAB V93646	0.0.1	D.F	0 0 0 2 0	1 G	EPA HW Number X X 1 0 1 0 1 0 1 2 Authorization Number 0 1 9 1 0 1 0 1 0 1 1
b. Waste Water Reactive Solid, n.o.s. (Dangerous when Wet) Flammable Solid UN 2813 LAB V93645	0.0.1	D.F	0 0 0 2 0	1 G	EPA HW Number X X 1 0 1 0 1 0 1 3 Authorization Number 0 1 9 1 0 1 0 1 0 1 1
c. Waste Water Reactive Solid, nos (Dangerous When Wet) Flammable Solid UN 2813 LAB V93645	0.0.1	C.W	0 0 0 0 5	1 G	EPA HW Number X X 1 0 1 0 1 0 1 3 Authorization Number 0 1 9 1 0 1 0 1 0 1 1
d. Waste ORM-A, nos ORM-A NA1693 LAB V93645	0.0.2	D.F	0 0 0 1 0	1 G	EPA HW Number X X 1 0 1 2 1 2 1 6 Authorization Number 0 1 9 1 0 1 0 1 0 1 1

J. Additional Descriptions for Materials Listed Above
11a) OCO -7 none Decant
11b) OCT -25 D001, D008 Lab Pack
11c) OCT -26 D010, D001, D007 Lab Pack
11d) OCT 22-23 U211, U044 Lab Pack

K. Handling Codes for Wastes Listed Above In Item # 14
1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information

IN EVENT OF AN EMERGENCY
Contact Chemical Waste Management, Inc.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: BRIAN FINNEGAN — Signature: Brian Finnegan — Date: Month Day Year 0 7 2 0 9 1

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: ROBERT L. KANN JR. — Signature: Robert L. Kann Jr. — Date: Month Day Year 0 7 2 0 9 1

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: Maurice J. Tanis — Signature: Maurice J. Tanis — Date: Month Day Year 0 7 2 0 9 1

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: Teresa Carey — Signature: Teresa Carey — Date: Month Day Year 0 7 2 9 9 1

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1 TO MAIL TO GENERATOR

1-7865 A
1-7864 B-D

SAFETY-KLEEN CORP.
STATE PRESCRIBED FORM P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761
State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE.

E: FORM DESIGNED TO PRINT 8 LINES PER INCH EPA Form 8700-22 (6-89) Form Approved. OMB No. 2050-0039 Expires 9-30-

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ILD049809379
Manifest Document No. 25794
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address / Location If Different:
Olin Chemical
Patterson Rd
Joliet Il 60434

4. Generator's Phone (815) 727 4901

A. Illinois Manifest Document Number IL 5141048
B. Illinois Generator's ID 1970450010

5. Transporter 1 Company Name: Safety Kleen Corp
6. US EPA ID Number: ILD051060408
C. Illinois Transporter's ID
D. Transporter's Phone 708 479 1064

7. Transporter 2 Company Name
8. US EPA ID Number
E. Illinois Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address:
Safety Kleen Corp
633 E 138th St
Dolton Il 60419

10. US EPA ID Number: ILD980613913
G. Illinois Facility's ID 0310690006
H. Facility's Phone 708 849 4850

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Combustible Liquid NOS (oil) NA1993 (D001) ERG#27	004	DM	00150	1	EPA HW Number X X D 0 0 1; Authorization Number 0 0 0 1 6 1
b. RQ Hazardous Waste Liquid NOS ORM-E NA9189 (F001) ERG#31	032	DM	01600	1	EPA HW Number X X F 0 0 1; Authorization Number 0 0 0 1 6 2
c. ~~Petroleum Oil Combustible Liquid NA1270 ERG# 27 (Not USEPA Hazardous Waste)~~	000	~~DM~~	00000	1	EPA HW Number X X; Authorization Number 0 0 0 1 6 4
d.					EPA HW Number X X; Authorization Number

J. Additional Descriptions for Materials Listed Above
Sample # 209095a
2090936
~~209088~~

K. Handling Codes for Wastes Listed Above in Item #14
1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information
Emergency Resp# 708 888 4660 24hr 752109
SK DOT# 3002a 1063b ~~1061 c~~ 5-034-05-9165 M26794 2 9919842

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: BRIAN FINNEGAN Signature: [signature] Date Month Day Year 07 17 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: JAMES RACHAU Signature: James Rachau Date Month Day Year 07 17 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: ~~BRIAN FINNEGAN~~ Signature: ~~[signature]~~ Date Month Day Year ~~07 17 91~~

19. Discrepancy Indication Space
Cross out Line 16 Generator signed in wrong place
NO WASTE Picked UP AT 12C 13 JUL 30 1991

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: [illegible] Signature: [signature] Date Month Day Year 07 17 91

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 3 TSD COPY

ILLINOIS ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

Attn: Vicki Ray

Y-KLEEN CORP. P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761
E PRESCRIBED FORM State Form LPC 62 8/81 IL532-0610
FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE

M DESIGNED TO PRINT 8 LINES PER INCH EPA Form 8700-22 (6-89) Form Approved. OMB No. 2050-0039 Expires 9-30-91

FORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ILD049809379 | Manifest Document No. 25794 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address / Location If Different:
Olin Chemical
Patterson Rd
Joliet Il 60434

4. Generator's Phone (815) 727 4901

5. Transporter 1 Company Name: Safety Kleen Corp | 6. US EPA ID Number: ILD051060408

7. Transporter 2 Company Name: Sheila Tall | 8. US EPA ID Number: WID980904750

9. Designed Facility Name and Site Address:
Safety Kleen Corp
State Hwy 146
New Castle Ky 40050

10. US EPA ID Number: KYD053348108

A. Illinois Manifest Document Number: IL 5141050 (MANIFEST FEE PAID)
B. Illinois Generator's ID: 1970450010
C. Illinois Transporter's ID: [illegible] Transporter's Phone
D. [illegible] Transporter's Phone: 708 479 1064
E. Illinois Transporter's ID: FAD 007857 Transporter's Phone
G. Illinois Facility's ID:
H. Facility's Phone: (502 845 2453

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Combustible Liquid NOS (oil) NA1993 (D018) ERG#27	007	DM	00350 ~~00400~~	1	EPA HW Number X X D 0 1 8 Authorization Number
b.					EPA HW Number X X Authorization Number
c.					EPA HW Number X X Authorization Number
d.					EPA HW Number X X Authorization Number

J. Additional Descriptions for Materials Listed Above: Sample # 209097

K. Handling Codes for Wastes Listed Above: 1 = Gallons 2 = Cubic Yards
S01 T50

15. Special Handling Instructions and Additional Information
Emergency Resp# 708 888 4660 24hr
3096 5-034-05- 9165 M26794 20403208
SK DOT

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Date (Month Day Year)
Brian Finnegan	[signature]	07 17 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials		
Printed/Typed Name: James Rachal	Signature: [signature]	Date: 07 17 91
18. Transporter 2 Acknowledgement of Receipt of Materials		
Printed/Typed Name: John Ellis	Signature: [signature]	Date: 07 26 91

FACILITY

19. Discrepancy Indication Space
Crossout in 13 K

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
Angela Atkinson	[signature]	07 30 91

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 3. TSD COPY

In case of a spill call the Illinois Office of Emergency Response at 217/782-3637, and the National Response Center at 800/424-8802 or 202/426-2675.

STATE OF ILLINOIS
ENVIRONMENTAL PROTECTION AGENCY DIVISION OF LAND POLLUTION CONTROL

SAFETY-KLEEN CORP. STATE PRESCRIBED FORM — P.O. BOX 19276 — SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761 — FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE.

State Form LPC 62 8/81 IL532-0610

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH — EPA Form 8700-22 (6-89) — Form Approved. OMB No. 2050-0039 Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ILD049809379 — Manifest Document No.: 25794
2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address — Location if Different:
Olin Chemical
Patterson Rd
Joliet Il 60434
4. Generator's Phone (815) 727 4901

A. Illinois Manifest Document Number: IL 5141052 MANIFEST FEE PAID
B. Illinois Generator's ID: 1970450010

5. Transporter 1 Company Name: Safety Kleen Corp
6. US EPA ID Number: ILD051060408
C. Illinois Transporter's ID: 1123
D. Transporter's Phone: 708 479 1064

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. Illinois Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Safety Kleen Corp
633 E 138th St
Dolton Il 60419
10. US EPA ID Number: ILD980613913
G. Illinois Facility's ID: 0310690006
H. Facility's Phone: 708 849 4850

11. US DOT Description (Including Proper Shipping Name, Hazard Class and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RQ Waste Combustible Liquid NOS (oil) NA1993 (D001) ERG#27	004	DM	60180	1	EPA HW Number: XXD001; Authorization Number: 0001161
b. RQ Hazardous Waste Liquid NOS ORM-E NA9189 (F001) ERG#31	012 ~~08~~	DM	00550	1	EPA HW Number: XXF001; Authorization Number: 0001162
c.					EPA HW Number: XX; Authorization Number:
d.					EPA HW Number: XX; Authorization Number:

J. Additional Descriptions for Materials Listed Above
Sample # 209095a
209093b

K. Handling Codes for Wastes Listed Above in Item 14: 1 = Gallons 2 = Cubic Yards
S01 S02 R05
S01 S02 R05

15. Special Handling Instructions and Additional Information
Emergency Resp# 708 888 4660 24hr
SK DOT# 3002a 1063b 5-034-05-9165 M25794

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

30396857

Printed/Typed Name: Brian Finnegan — Signature: [signature] — Date (Month Day Year): 07 17 91

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: James Rachny — Signature: James Rachny — Date: 07 17 91

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Date (Month Day Year):

MAILED AUG 11 1991

19. Discrepancy Indication Space
CROSS OUT IN 12B

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Agnes Adams — Signature: On behalf of Safety Kleen Agnes Adams — Date (Month Day Year): 07 22 91

Margin notes: Mollen; 1003 ~~0004~~ 1010

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 3. TSD COPY

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

FOR SHIPMENT OF HAZARDOUS, INFECTIOUS AND SPECIAL WASTE.

NOTE: FORM DESIGNED TO PRINT 8 LINES PER INCH. **EPA Form 8700-22 (Rev. 6-89)** Form Approved. OMB No. 2050-0039, Expires 9-30-91

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I L D 0 4 9 8 0 9 3 7 9 | Manifest Document No. 9 1 7 5 4

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address / Location If Different:
Olin Chemicals
Patterson Road - Post Office Box 221 9
Joliet, Illinois 60433

4. Generator's Phone(815) 740-5496

A. Illinois Manifest Document Number: IL 4467734 MANIFEST FEE PAID

B. Illinois Generator's ID: I 9 7 0 4 5 0 0 0 1

5. Transporter 1 Company Name: Chemical Waste Management-TSD
6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

C. Illinois Transporter's ID: 0 0 7 5

D. (708) 396-1050 Transporter's Phone

7. Transporter 2 Company Name: Chemical Waste Management-Alsip
8. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

E. Illinois Transporter's ID: 0 0 7 5

F. (708) 396-1060 Transporter's Phone

9. Designated Facility Name and Site Address: Trade Waste Incineration
#7 Mobile Avenue
Sauget, Illinois 62201
10. US EPA ID Number: I L D 0 9 8 6 4 2 4 2 4

G. Illinois Facility's ID: I 6 3 1 2 1 0 0 0 9

H. Facility's Phone: (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. Waste Sodium Permangarate Solution Oxidizer UN1503 LAB418283	001	DM	000055	G	EPA HW Number: X X D 0 1 0 1 Authorization Number: 0 9 0 0 0 1
b. Waste Acid Liquid, N.O.S. Corrosive Material NA1760 LAB 418283	001	DM	000030	G	EPA HW Number: X X D 0 0 2 Authorization Number: 0 9 0 0 0 1
c.					EPA HW Number: X X Authorization Number:
d.					EPA HW Number: X X Authorization Number:

J. Additional Descriptions for Materials Listed Above: The above are repacks
11a) Drum # OCR-2
11b) Drum # OCR-1 codes: 4134

K. Handling Codes for Wastes Listed Above in Item # 14.
1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information: THIS MATERIAL MUST BE DISPATCHED NO LATER THAN DAY 17 MO. 7 YR. 91
SIGNATURE

IN CASE OF AN EMERGENCY Contact Chemical Waste Management, Inc. At (205) 652-9721

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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GENERATOR

Printed/Typed Name	Signature	Date (Month Day Year)
Brian Finnegan		07 09 91

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
Edward Sanchez		07 09 91

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
CRAIG DOORNBOS		07 11 91

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day)
LYNN A. WILLIAMS		07 12 91

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR

1-8185

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178
BATON ROUGE, LOUISIANA 70884-2178

A-8 2040362

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ILD049809379 | Manifest Document No.: 10492
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Olin Chemical Company
Patterson Road
Joliet, Illinois 60434
4. Generator's Phone (815) 727-5971

A. State Manifest Document Number: LAA 3125084
B. State Generator's ID

5. Transporter 1 Company Name: Chemical Waste Management, Inc.
6. US EPA ID Number: ILD099202681
C. State Transporter's ID: 0075
D. Transporter's Phone: 708/396-1926

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
Chemical Waste Management, Inc.
John Brannon Road
Carlyss, Louisiana 70663
10. US EPA ID Number: LAD000777201
G. State Facility's ID
H. Facility's Phone: 318/583-2169

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Non-Regulated Material LAB AM6346	053	DM	03040	G	NH
b. Non-Regulated Material LAB AM 6346	003	DF	00165	G	NH
c. Non-Regulated Material LAB AM 6348	006	DM	00330	G	NH
d.					

J. Additional Descriptions for Materials Listed Above: All of the above are bulk drums
1a) Drum# OC 23,24,27,33,39-46,48,53,56-60,63,73,75,84,87, 89,90,95,104,106,107,114,121,122,124,127,137,139,142,144,145, 150,152-154,161 OC 29,50,126,138,92,136,156 are overpacks
1b) Drum# OC 83,99,100
1c) Drum# OC 28,32,37,49,125,149

K. Handling Codes for Wastes Listed Above:
M132, M142, M111
M142, M111 M132
M142, M111 M132

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management, Inc. at (205)652-9721.
For any manifest discrepancy, contact Alsip Technical Services Division at (708)396-1926
No ERG#'s are applicable - in case of spill absorb with bentonite
92050602Z

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name	Signature	Month Day Year
GEORGE W. THOMPSON	George W. Thompson	07 30 92

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year
Donald Carine	Donald Carine	07 30 92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month Day Year
M Morrison	M Morrison	08 06 92

IF SPILLED IN LOUISIANA CALL THE LOUISIANA HAZMAT UNIT AT 504/925-6595 (DAY OR NIGHT)

COPY 3

EPA Form 8700-22 k(Rev. 9/88) Previous edition is obsolete.

COPY 3: FACILITY RETAINS

DEQ FORM HW-3 (R 9/89)

11-25-92 01:35PM P08

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178
BATON ROUGE, LOUISIANA 70884-2178

FILE

BM

4/24

PLEASE PRINT OR TYPE. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: I L D 0 4 9 8 0 9 3 7 9 | Manifest Document No.: 1 0 5 9 2
2. Page 1 of 1
Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
Olin Chemical Company
Patterson Road
Joliet, Illinois 60434
4. Generator's Phone (815) 727-5971

A. State Manifest Document Number: LAA 3125085
B. State Generator's ID

5. Transporter 1 Company Name: Chemical Waste Management, Inc.
6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1
C. State Transporter's ID: 0075
D. Transporter's Phone: 708/396-1926

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address:
Chemical Waste Management, Inc.
John Brannon Road
Carlyss, Louisiana 70663
10. US EPA ID Number: LAD000777201
G. State Facility's ID
H. Facility's Phone: 318/583-2169

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Corrosive liquid, n.o.s. (Sodium hydroxide) Corrosive Material UN1760 RQ(D002) LAB AM6352	005	DM	00305	G	D002
b. Waste Alkaline liquid, n.o.s. (Diethylethanolamine) Corrosive Material NA1719 RQ(D002) LAB AM 6354	011	DM	00055	G	D002
c. Waste Alkaline liquid, n.o.s. (Sodium Silicate) Corrosive Material NA1719 RQ(D002) LAB AM 6357	010	DM	00550	G	D002
d. Waste Alkaline liquid, n.o.s. (Sodium and Potassium Silicates) Corrosive Material NA1719 RQ(D002) LAB AM 6359	003	DM	00115	G	D002

J. Additional Descriptions for Materials Listed Above: All of the above are DOT drums
(a) drums OC 21, 103, 102, 140, OC 105 is overpack
(b) drums OC 10 ...
(c) drums OC 1-8, 13, 98
(d) drums OC 141; OC 168, 166 are overpacks

K. Handling Codes for Wastes Listed Above:
M132, M142, M111
M132, M142, M111
M132, M142, M111
M132, M142, M111

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management, Inc. at (205)652-9721.
For any manifest discrepancy, contact Alsip Technical Services Division at (708)396-1926
ERG#'s - 1834
120806023

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: GEORGE THOMPSON | Signature: George Thompson | Month Day Year: 08 05 92

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WALTER McCAhill | Signature: Walter McCahill | Month Day Year: 08 05 92

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: C. Vodeau | Signature: C. Vodeau | Month Day Year: 08 04 92

IF SPILLED IN LOUISIANA CALL THE LOUISIANA HAZMAT UNIT AT 504/925-6595 (DAY OR NIGHT)

COPY 3

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

COPY 3: FACILITY RETAINS

DEQ FORM HW-3 (R 9/89)

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178
BATON ROUGE, LOUISIANA 70884-2178

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-92

IF SPILLED IN LOUISIANA CALL THE LOUISIANA DNR UNIT AT 504/925-6595 (DAY OR NIGHT)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I L D 0 9 8 0 9 3 7 9 1 — Manifest Document No. 0 0 6 9 2

2. Page 1 of 1

Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Olin Chemical Company
Patterson Road
Joliet, Illinois 60434

4. Generator's Phone (815) 727-5971

A. State Manifest Document Number: LA A 3125086

B. State Generator's ID

5. Transporter 1 Company Name: Chemical Waste Management, Inc.

6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

C. State Transporter's ID: 0 0 7 5

D. Transporter's Phone: 708/396-1926

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Chemical Waste Management, Inc.
2,700 John Brannon Road
Carlyss, Louisiana 70663

10. US EPA ID Number: L A D 0 0 0 7 7 7 2 0 1

G. State Facility's ID

H. Facility's Phone: 318/583-2169

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14 Unit Wt/Vol	Waste No.
a. Non-Regulated Material LAB AM6349	P B 2	DM	001825	G	NH
b. Non-Regulated Material LAB AM6353	P P 3	DM	001105	G	NH
c. Non-Regulated Material LAB AM6361	P P 3	DM	001165	G	NH
d. Non-Regulated Material LAB AM6361	1 P P 1	DF	000055	G	NH

J. Additional Descriptions for Materials Listed Above — All of the above are bulk drums
1a) drum # OC 35,47,54,55,64,65,67,71,72,76-81,120,123,148 OC 66,68,69,74,85,86,88,97,110,112,113,115-117 are overpacks
1b) drum # OC 134, OC17 is overpack
1c) drum # OC 22,131,133
1d) drum # OC 132

K. Handling Codes for Wastes Listed Above
M132, M142, M111
M142, M111, M132
M142, M111, M132
M142, M111, M132

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management, Inc. at (205)652-9721.
For any manifest discrepancy, contact Alsip Technical Services Division at (708)396-1926
NO ERG #'s are applicable - in case of spill absorb with bentonite
120000223

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimize the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name: GEORGE THOMPSON — Signature — Month Day Year: 08 05 92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: WALTER McCAHILL — Signature — Month Day Year: 08 05 92

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name — Signature — Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: C. Whitaker — Signature — Month Day Year: 08 07 92

EPA Form 8700-22 k(Rev. 9/88) Previous edition is obsolete.

DEQ FORM HW-3 (R 9/89)

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178
BATON ROUGE, LOUISIANA 70884-2178

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-

IF SPILLED IN LOUISIANA CALL THE LOUISIANA HAZMAT UNIT AT 504/925-6595 (DAY OR NIGHT)

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: I L D 0 4 9 3 0 9 3 7 9 | Manifest Document No.: 1 5 1 2 5 2

2. Page 1 of 1

Information in the shaded a. is not required by Federal law.

3. Generator's Name and Mailing Address
Olin Chemical Company
Patterson Road
Joliet, Illinois 60434

4. Generator's Phone (315) 727-5971

A. State Manifest Document Number: LA A 3125091

B. State Generator's ID

5. Transporter 1 Company Name: Chemical Waste Management, Inc.

6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

C. State Transporter's ID: 0 0 7 5

D. Transporter's Phone: 708/396-1926

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Chemical Waste Management, Inc.
John Brannon Road
Carlyss, Louisiana 70663

10. US EPA ID Number: L A D 0 0 0 7 7 7 2 0 1

G. State Facility's ID

H. Facility's Phone: 318/583-2169

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14 Unit Wt/Vol	I Waste No.
a. Non-Regulated Material LAB AM 6364	001	DF	000200	P	NH
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above: All of the above are drums
11a) Drum # OC102

K. Handling Codes for Wastes Listed Above: M132, M142

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management, Inc. at (205)552-9721.
For any manifest discrepancy, contact Alsio Technical Services Division at (708)396-1926
NO ERG #'s are applicable.
120000023

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: GEORGE THOMPSON | Signature: George J Thompson | Month Day Year: 08 05 92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: WALTER McCAHILL | Signature: Walter McCahill | Month Day Year: 08 05 92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name: CK Rhodes | Signature: CK Rhodes | Month Day Year: 08 07 92

EPA Form 8700-22 k(Rev. 9/88) Previous edition is obsolete.

COPY 2: FACILITY TO GENERATOR

DEQ FORM HW-3 (R 9/89)

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178
BATON ROUGE, LOUISIANA 70884-2178

FILE

#4

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I L D 0 4 9 2 0 9 3 7 9 3 — Manifest Document No. 2

2. Page 1 of — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
Olin Chemicals Corporation
Patterson Road
Joliet, Illinois 60434

A. State Manifest Document Number LA A 3162976

B. State Generator's ID

4. Generator's Phone (815) 727-5971

5. Transporter 1 Company Name: Chemical Waste Management, Inc.

6. US EPA ID Number: I L 0 0 9 9 2 0 2 6 8 1

C. State Transporter's ID 0 0 7 5

D. Transporter's Phone 708/396-1926

7. Transporter 2 Company Name

8. US EPA ID Number

E. State Transporter's ID

F. Transporter's Phone

9. Designated Facility Name and Site Address
Chemical Waste Management, Inc.
John Brannon Road, RT 2
Carlyss, Louisiana 70663 1/18/72

10. US EPA ID Number: L A D 0 0 0 7 7 7 2 0 1

G. State Facility's ID

H. Facility's Phone 318/583-2159

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	Waste No.
a. NON-REGULATED MATERIAL. SRLAM6346	004	DM	00280	G	NH
b.					
c.					
d.					

J. Additional Descriptions for Materials Listed Above
11a. OC-36, 51, 135, 157
(OC-36, 51 ARE OVERPACKS)

K. Handling Codes for Wastes Listed Above
M-132
M42, M41, M132

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management, Inc. at (205)652-9721.
For any manifest discrepancy, contact Alsip Technical Services at (708)396-1925.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
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GENERATOR

Printed/Typed Name	Signature	Month	Day	Year
JOSEPH J. CARROLL	Joseph J. Carroll	09	09	92

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Christopher Bass		09	09	92

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

TRANSPORTER

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.

Printed/Typed Name	Signature	Month	Day	Year

FACILITY

COPY 3

EPA Form 8700-22 (Rev. 9-88) Previous edition is obsolete.

DEQ FORM HW-3 (R 9/89)

STATE OF LOUISIANA
DEPARTMENT OF ENVIRONMENTAL QUALITY
HAZARDOUS WASTE DIVISION
P.O. BOX 82178
BATON ROUGE, LOUISIANA 70884-2178

(49458) 209431

PLEASE PRINT OR TYPE (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039. Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ILD 049 809 379 8 — Manifest Document No.:
2. Page 1 of 1 — Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address:
Olin Chemical Corporation
Patterson Road
Joliet, Illinois 60434

4. Generator's Phone: 815 727-5971

A. State Manifest Document Number: LAA 3163032

B. State Generator's ID:

5. Transporter 1 Company Name: Chemical Waste Management, Inc.
6. US EPA ID Number: ILD 099 202 681
C. State Transporter's ID: 0075
D. Transporter's Phone: 708/396-1926

7. Transporter 2 Company Name:
8. US EPA ID Number:
E. State Transporter's ID:
F. Transporter's Phone:

9. Designated Facility Name and Site Address:
Chemical Waste Management, Inc.
John Brannon Road
Carlyss, Louisiana 70663

10. US EPA ID Number: LAD 000 777 201
G. State Facility's ID:
H. Facility's Phone: 318/538-2169

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L. Waste No.
a. NON-REGULATED MATERIAL NON-REGULATED BF5149 11/4/92	007 ~~012~~	DM	00505 ~~00750~~	G	NA ~~NONE~~
b. NON-REGULATED MATERIAL NON-REGULATED BF5149	005	DF	00275	G	NA ~~NONE~~
c. 95 per JC 11-17-92					
d.					

J. Additional Descriptions for Materials Listed Above
11a. OC-14,15,16,35,20,21,30
11b. 09,10-11,12,13

K. Handling Codes for Wastes Listed Above
11a. M142, M132
11b. M142, M132
11/4/92

15. Special Handling Instructions and Additional Information
In the event of an emergency, contact Chemical Waste Management at (205)652-9721.
For any manifest discrepancy, contact Alsip Technical Services at (708)396-8334.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: JOSEPH J. CARROLL — Signature: [signature] — Month Day Year: 11 04 92

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: RICHARD J. CWIKLINSKI — Signature: [signature] — Month Day Year: 11 04 92

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: — Signature: — Month Day Year:

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Julie Glendl — Signature: [signature] — Month Day Year: 11/16/92

IF SPILLED IN LOUISIANA CALL THE LOUISIANA HAZMAT UNIT AT 504/925-6595 (DAY OR NIGHT)

EPA Form 8700-22 k(Rev. 9/88) Previous edition is obsolete.

COPY 2: FACILITY TO GENERATOR

DEQ FORM HW-3 (R 9/89)

STATE OF ILLINOIS

P.O. BOX 19276, SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 9-88) Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ILD049809379 — Manifest Document No.: 92209

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Olin Chemicals Corporation, Post office Box 2219, Joliet, Illinois 60434

Location If Different: Patterson Road, Joliet, Illinois 60434

4. Generator's Phone (815) 727-5971

A. Illinois Manifest Document Number: IL 3719224 — Fee Paid, If Applicable

B. Illinois Generator's ID: 1197045000001

5. Transporter 1 Company Name: Chemical Waste Management Inc — 6. US EPA ID Number: ILD099202681

C. Illinois Transporter's ID: 0101715

D. Transporter's Phone: (708) 396-1920

7. Transporter 2 Company Name: Chemical Waste Management — 8. US EPA ID Number: ILD099202681

E. Illinois Transporter's ID: 1010171

F. Transporter's Phone: (708) 396-1976

9. Designated Facility Name and Site Address: Trade Waste Incineration, #7 Mobile Avenue, Sauget, Illinois 62201 — 10. US EPA ID Number: ILD098642424

G. Illinois Facility's ID: 1163121000

H. Facility's Phone: (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	L. Waste No.
a. Waste Ammonium Hydroxide, Corrosive Material, NA2672 LABA02801	001	DF	00116	G	EPA HW Number: XXD002; Authorization Number: 0910001
b. Waste Picric Acid wet with not less than 10% water, Flammable Solid, NA1344 LABA02801	001	DF	00116	G	EPA HW Number: XXD001; Authorization Number: 0910001
c. Waste Poison B, Solid, N.O.S., Poison B (ammonium vanadate) UN2811 LABA02801	001	DF	00116	G	EPA HW Number: XXP119; Authorization Number: 0910001
d. Waste Oxidizer, N.O.S., Oxidizer, UN1479 LABA02801	001	DF	00005	G	EPA HW Number: XXD001; Authorization Number: 0910001

J. Additional Descriptions for Materials Listed Above: The above are lab packs
11a) Drum # OCT-18
11b) Drum # OCT-20
11c) Drum # OCT-19
11d) Drum # OCT-21 code: D011

K. Handling Codes for Wastes Listed Above in Item #14: 1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information

In Event of an emergency contact Chemical waste Management, Inc. at (205) 652-9721

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: JOSEPH CARROLL — Signature: Joseph Carroll — Date (Month Day Year): 020692

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID TONKOVICH — Signature: [signature] — Date (Month Day Year): 020692

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: KURT HEIDZEKE — Signature: [signature] — Date (Month Day Year): 021292

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: Cynthia Williams — Signature: Cynthia Williams — Date (Month Day Year): 021492

COPY 1. TSD MAIL TO GENERATOR COPY

2-5144

STATE OF ILLINOIS

P.O. BOX 19276 , SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 9-88)** Form Approved.OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I L D 0 4 9 8 0 9 3 7 9 | Manifest Document No. 9 2 1 5 3

2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Olin Chemicals Corporation
Post Office Box 2219
Joliet, Illinois 60434

Location If Different
Patterson Road
Joliet, Illinois 60434

4. Generator's Phone (815) 727-5971

A. Illinois Manifest Document Number IL 3719442

B. Illinois Generator's ID 1 9 7 0 4 5 0 0 0

5. Transporter 1 Company Name
Chemical Waste Management, Inc.

6. US EPA ID Number I L D 0 9 9 2 0 2 6 8 1

C. Illinois Transporter's ID 0 0 7

D. (708) 396-1926 Transporter's Phone

7. Transporter 2 Company Name
Chemical Waste Management

8. US EPA ID Number IL D 0 9 9 7 0 7 6 8 1

E. Illinois Transporter's ID 0 0 7

F. (708) 396-1926 Transporter's Phone

9. Designated Facility Name and Site Address
Trade Waste Incineration
#7 Mobile Avenue
Sauget, Illinois 62201

10. US EPA ID Number I L D 0 9 8 6 4 2 4 2 4

G. Illinois Facility's ID 1 6 3 1 2 1 0 0 0

H. Facility's Phone (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Perchloric Acid Not exceeding 72% Strength Oxidizer UN1873 LABA02801	009	DF	00045	G	EPA HW Number XXD00011 Authorization Number 090010
b. Waste Hydrogen Peroxide Solution Oxidizer UN2014 LABA02801	001	DF	00005	G	EPA HW Number XXD00011 Authorization Number 090010
c. Hazardous waste Solid, N.O.S. ORM-E NA9189 LABA02801	007	DF	00096	G	EPA HW Number XXU114 Authorization Number 090010
d. Phosphoric Anhydride Corrosive Material NA1807 LABA02801	001	DF	00016	G	EPA HW Number XXIN011 Authorization Number 090010

J. Additional Descriptions for Materials Listed Above
(1a) Drum # OCT-1-9 The above are labpacks
(1b) Drum # OCT -10
(1c) Drum # OCT 11-16 code: D005, U328
(1d) Drum # OCT -17

K. Handling Codes for Wastes Listed Abc in Item # 14
1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information
In event of an emergency, contact Chemical Waste Management, Inc. at (205)652-9721.

THIS MATERIAL TO LISTED

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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DISPATCHER 12/20/92

Printed/Typed Name	Signature	Date Month Day Year
JOSEPH CARROLL	Joseph Carroll	02069

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
DAVID TONKOVICH		02069

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date Month Day Year
KURT HEIDECKE		021293

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date Month Day Year
Cynthia Williams	Cynthia Williams	021492

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR COPY

2-5144

STATE OF ILLINOIS

P.O. BOX 19276 , SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 9-88) Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: ILD049809379 | Manifest Document No.: 92194 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address: Olin Chemicals Corporation, Post Office Box 2219, Joliet, Illinois 60434

Location If Different: Patterson Road, Joliet, Illinois 60434

4. Generator's Phone (815) 727-5971

A. Illinois Manifest Document Number: IL 3719443 — Fee Paid, If Applicable

B. Illinois Generator's ID: 1970450001

5. Transporter 1 Company Name: Chemical Waste Management, Inc.

6. US EPA ID Number: ILD099202681

C. Illinois Transporter's ID: 0075

D. (708) 396-1926 Transporter's Phone

7. Transporter 2 Company Name: Chemical Waste Management

8. US EPA ID Number: ILD099202681

E. Illinois Transporter's ID: 0075

F. (708) 396-1926 Transporter's Phone

9. Designated Facility Name and Site Address: Trade Waste Incineration, #7 Mobile Avenue, Sauget, Illinois 62201

10. US EPA ID Number: ILD098642424

G. Illinois Facility's ID: 1631210009

H. Facility's Phone (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Paint Related Material Flammable Liquid NA1263 LABA02802	2-5-92 5 004	DM	00025	1 G	EPA HW Number XXD001 / Authorization Number 0910001
b. Waste Paint Related Material Flammable Liquid NA1263 LABA02802	2-5-92 5 006	DF	00080	1 G	EPA HW Number XXD001 / Authorization Number 0910001
c. Non Regulated Illinois Special Waste LABA02802	010	DF	00072	1 G	EPA HW Number XXNONE / Authorization Number 0910002
d. Non Regulated Illinois Special Waste LABA02802	002	DM	00010	1 G	EPA HW Number XXNONE / Authorization Number 0910002

J. Additional Descriptions for Materials Listed Above: The above are labpacks (decants)

11a) Drum #OCD1-3, 6, 7

11b) Drum #OCD-4, 5, 12, 18, 21

11c) Drum # OCD-8, 11, 13-16, 20, 22-24

11d) Drum # OCD-9, 10, 19

K. Handling Codes for Wastes Listed Above in Item #14: 1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information

In event of an emergency, contact Chemical Waste Management, Inc. at (205)652-9721.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed/Typed Name: JOSEPH CARROLL | Signature: Joseph Carroll | Date (Month Day Year): 020692

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: DAVID TONKOVICH | Signature: [signature] | Date (Month Day Year): 020692

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name: KURT HEIDECKE | Signature: Kurt Heidecke | Date (Month Day Year): 021292

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name: CYNTHIA WILLIAMS | Signature: Cynthia Williams | Date (Month Day Year): 021492

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

2-5138

COPY 1. TSD MAIL TO GENERATOR COPY

P.O. BOX 19276 , SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0010

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 9-88) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ILD049809379 Manifest Document No. 92755

2. Page 1 of 1 — Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Olin Chemicals Corporation
Post Office Box 2219
Joliet, Illinois 60434

Location If Different
Patterson Road
Joliet, Illinois 60434

4. Generator's Phone (815) 727-5971

A. Illinois Manifest Document Number IL 3719444 Fee Paid: If Applicable

B. Illinois Generator's ID 1970450001

5. Transporter 1 Company Name: Chemical Waste Management, Inc.

6. US EPA ID Number: ILD099202681

C. Illinois Transporter's ID 00075

D. (708) 396-1926 Transporter's Phone

7. Transporter 2 Company Name: Chemical Waste Management

8. US EPA ID Number: ILD099202681

E. Illinois Transporter's ID 10015

F. (708) 396-1926 Transporter's Phone

9. Designated Facility Name and Site Address
Trade Waste Incineration
#7 Mobile Avenue
Sauget, Illinois 62201

10. US EPA ID Number: ILD098642424

G. Illinois Facility's ID 1631210009

H. Facility's Phone (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
GENERATOR a. Waste Paint Flammable Liquid UN1263 LAB A02802	001	DF	00016	G	EPA HW Number XXD001 Authorization Number 990001
b. Waste Combustible Liquid, N.O.S. Combustible Liquid NA1993 LAB A02802	001	DM	00005	G	EPA HW Number XXD001 Authorization Number 990001
c. Waste Paint Related Material Flammable Liquid NA1263 RQ D001 LABA02803	002	DM	00110	G	EPA HW Number XXD001 Authorization Number 990001
d. Waste Flammable Liquid, N.O.S. Flammable Liquid UN1993 RQ D001 LABA06920	001	DM	00055	G	EPA HW Number XXD001 Authorization Number 990001

J. Additional Descriptions for Materials Listed Above — The above are labpacks
1(a) Drum # OCD-17
1(b) Drum # OCD-19
1(c) Drum # OCR 1,2 codes D008, D007
1(d) Drum # OCR-1 codes: D018, D035

K. Handling Codes for Wastes Listed Above in Item # 14
1 = Gallons 2 = Cubic Yards

15. Special Handling Instructions and Additional Information
In event of an emergency, contact Chemical Waste Management, Inc. at (205)652-9721.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: J. JOSEPH CARROLL Signature: Joseph Carroll Month Day Year: 02 06 92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: DAVID TONKOVICH Signature: [signature] Month Day Year: 02 06 92

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: KURT HEIDECKE Signature: [signature] Month Day Year: 02 12 92

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed/Typed Name: CYNTHIA WILLIAMS Signature: [signature] Month Day Year: 02 14 92

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that the information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of the information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR COPY

2-5136 D 2-5138 A+B 2-5137 C

State Form LPC 62 8/81 IL532-0610

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) EPA Form 8700-22 (Rev. 9-88) Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. ILD049809379 Manifest Document No. 92926
2. Page 1 of 1
Information in the shaded areas is not required by Federal law, but is required by Illinois law.

GENERATOR

3. Generator's Name and Mailing Address
Olin Chemicals Corporation
Post office box 2219
Joliet, Illinois 60434
4. Generator's Phone (815) 727-5971

Location If Different
Patterson Road
Joliet Illinois 60434

A. Illinois Manifest Document Number IL 3733535 Fee Paid, If Applicable
B. Illinois Generator's ID 1197014150001
C. Illinois Transporter's ID 100715
D. (708) 396-1926 Transporter's Phone
E. Illinois Transporter's ID
F. ( ) Transporter's Phone

5. Transporter 1 Company Name: Chemical Waste Management INC
6. US EPA ID Number: ILD099202681
7. Transporter 2 Company Name:
8. US EPA ID Number:

9. Designated Facility Name and Site Address
Trade Waste Incineration
#7 Mobile Drive
Sauget, Illinois 62201
10. US EPA ID Number: ILD098642424
G. Illinois Facility's ID 1116311211000019
H. Facility's Phone (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Waste Flammable Liquid, N.O.S. Flammable Liquid UN1993 LABA06921	001	DF	00005	1 G	EPA HW Number XXD001; Authorization Number 0910001011
b. Non Regulated Illinois Special Waste LABA06921	002	DF	00011	1 G	EPA HW Number XXNONE; Authorization Number 0910000021
c. Non Regulated Illinois Special Waste LABA06921	001	DM	00005	1 G	EPA HW Number XXNONE; Authorization Number 0910000121
d. Non Regulated Illinois Special Waste LABA02845	002	DF	00032	1 G	EPA HW Number XXNONE; Authorization Number 0910000121

J. Additional Descriptions for Materials Listed Above The above are labpacks
11a) Drum # OCD-1
11b) Drum # OCD-3,2
11c) Drum # OCD-4
11d) Drum # OCT-1,2

K. Handling Codes for Wastes Listed Above in Item # 14
1 = Gallons 2 = Cubic Yards
THIS MATERIAL MUST BE DISPATCHED NO LATER THAN 9/2/92 (DAY MO. YR.)

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management Inc. at (205) 652-9721

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.
If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: JOSEPH CARROLL | Signature: Joseph J. Carroll | Date: Month Day Year 02 11 92

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: Milford Grimes Laura Williams | Signature: Milton Grimes 02-14-92 Laura Williams | Date: Month Day Year 02 11 92

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name: | Signature: | Date: Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name: MARIA WILLIAMS | Signature: Maria Williams | Date: Month Day Year 022292

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR COPY

2.5428 A-C
2.5429 D

REVIEWED BY: _____

NR - NON REGULATED

STATE OF ILLINOIS — ENVIRONMENTAL PROTECTION AGENCY · DIVISION OF LAND POLLUTION CONTROL

P.O. BOX 19276 , SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

8-24-92

PLEASE TYPE (Form designed for use on elite (12-pitch) typewriter.) **EPA Form 8700-22 (Rev. 9-88)** Form Approved OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. I L D 0 4 9 8 0 9 3 7 9 | Manifest Document No. 0 0 1 9 2 | 2. Page 1 of 1 | Information in the shaded areas is not required by Federal law, but is required by Illinois law.

3. Generator's Name and Mailing Address
Olin Chemical Company
Patterson Road
Joliet, Illinois 60434

Location If Different

4. Generator's Phone (815) 727-5971

A. Illinois Manifest Document Number IL3777978 Fee If Applicable

B. Illinois Generator's ID 1 9 7 0 4 5 0 0 1 0

5. Transporter 1 Company Name: Chemical Waste Management, Inc.

6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

C. Illinois Transporter's ID 0 0 7 5

D. (708) 396-1926 Transporter's Phone

7. Transporter 2 Company Name

8. US EPA ID Number

E. Illinois Transporter's ID

F. ( ) Transporter's Phone

9. Designated Facility Name and Site Address
CWM Resource & Recovery, INC
4301 Infirmary Road
West Carrollton, Ohio 45449

10. US EPA ID Number: O H D 0 9 3 9 4 5 2 9 3

G. Illinois Facility's ID 9 3 9 1 1 3 0 0 2 (VA)

H. Facility's Phone (513)859-6101

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. Hazardous Waste, liquid, n.o.s. (1,1,1 Trichloroethane in oil) ORM-E NA9189 LAB AM6347	005	DM	0,0,2,8,0	1 G	EPA HW Number XXF001 Authorization Number
b. Waste Flammable liquid, n.o.s. (Diesel Fuel, Petroleum Distillates) Flammable liquid UN1993 RQ(D001) LAB AM6350	007	DM	0,0,4,4,5	1 G	EPA HW Number XXD001 Authorization Number
c. Hazardous waste, liquid, n.o.s. (Methylene Chloride, Carbon Tetrachloride) ORM-E NA9189 RQ(D019, D039, D040, F001, F002) LAB AM6351	002	DM	0,0,1,4,0	1 G	EPA HW Number XXF001 Authorization Number
d. Non-Regulated Material LAB AM63660	001	DM	0,0,0,5,5	1 G	EPA HW Number XXNONE Authorization Number

J. Additional Descriptions for Materials Listed Above All of the above are bulk drums additional codes
11a) Drum # OC 26, 53, 61, 62; OC19 is overpack F002
11b) Drum # OC 118, 128-130; OC 96, 109, 146 F003, F005
11c) Drum # OC 94, 119, is overpack D019, D039, D040, F002
11d) Drum # OC 147

K. Handling Codes for Wastes Listed Above in Item # 14
1 = Gallons 2 = Cubic Yards
T03

15. Special Handling Instructions and Additional Information
In event of an emergency contact Chemical Waste Management, Inc. at (205)652-9721.

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

GENERATOR

Printed/Typed Name	Signature	Date (Month Day Year)
JOSEPH J. CARROLL (SITE SUPERVISOR)	Joseph J. Carroll	081792

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)
KARL F HOWARD	Karl F Howard	081792

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Date (Month Day Year)

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Date (Month Day Year)
M ROSE	M Rose	082192

This Agency is authorized to require, pursuant to Illinois Revised Statutes, Chapter 111½ Section 21, that this information be submitted to the Agency. Failure to provide the information may result in a civil penalty against the owner or operator of not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

COPY 1. TSD MAIL TO GENERATOR COPY

STATE OF ILLINOIS

P.O. BOX 19276 SPRINGFIELD, ILLINOIS 62794-9276 (217) 782-6761

State Form LPC 62 8/81 IL532-0610

EPA Form 8700-22 (Rev. 6-89)

FOR SHIPMENT OF HAZARDOUS AND SPECIAL WASTE

NOTE: FORM DESIGNED TO PRINT 5 LINES PER INCH.

Form Approved. OMB No. 2050-0039. Expires 9-30-92

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.: I L D 0 4 9 8 0 9 3 7 9 — Manifest Document No.: 3 3 5 9 2
2. Page 1 of 1

Information in the shaded areas is not required by Federal law, but is required by Illinois Law.

3. Generator's Name and Mailing Address: Olin Chemicals Corporation, Patterson Road, Joliet, Illinois 60434 (815)727-5971 — Location If Different:

A. Illinois Manifest Document Number: IL 4651656

B. Illinois Generator's ID: 1 9 7 0 4 5 0 0 5 0

4. 24 HOUR EMERGENCY AND SPILL ASSISTANCE NUMBERS: (205)652-9721

5. Transporter 1 Company Name: Chemical Waste Management, Inc.
6. US EPA ID Number: I L D 0 9 9 2 0 2 6 8 1

C. Illinois Transporter's ID

D. (708) 396-1926 Transporter's Phone

7. Transporter 2 Company Name: OZINGA TRANS. SYST.
8. US EPA ID Number: ILD 982067173

E. Illinois Transporter's ID

F. 708 328-0200 Transporter's Phone

9. Designated Facility Name and Site Address: Trade Waste Incineration, #7 Mobile Avenue, Sauget, Illinois 62201
10. US EPA ID Number: I L D 0 9 8 6 4 2 4 2 4

G. Illinois Facility's ID: 1 6 3 1 2 1 0 0 0 9

H. Facility's Phone: (618) 271-2804

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. WASTE FLAMMABLE LIQUIDS, NOS (ALKYL ALKANOLAMINE) FLAMMABLE LIQUID UN 1993 RQ(D001) MBL AM6360	0.0.1	D.M	0.0.0.0.5.5	G	EPA HW Number XXD001; Authorization Number 090002
b. WASTE FLAMMABLE LIQUIDS, NOS (PETROLEUM DISTILLATE) FLAMMABLE LIQUID UN 1993 RQ(D001) MBL AM6363	0.0.2	D.M	0.0.0.1.7.0	G	EPA HW Number XXD001; Authorization Number 090002
c.					EPA HW Number XX; Authorization Number
d.					EPA HW Number XX; Authorization Number

J. Additional Descriptions for Materials Listed Above: 11a. OC-93; 11b. OC-31,34 (OVERPACKS)

K. Handling Codes for Wastes Listed Above in Item # 14: G = Gallons Y = Cubic Yards

15. Special Handling Instructions and Additional Information

16. GENERATOR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

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Printed / Typed Name: JOSEPH J. CARROLL — Signature: [signature] — Date (Month Day Year): 09 09 92

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed / Typed Name: Christopher Bosa — Signature: [signature] — Date (Month Day Year): 09 09 92

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed / Typed Name: JOHN PROVITH JR — Signature: [signature] — Date (Month Day Year): 09 11 92

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of hazardous materials covered by this manifest except as noted in Item 19.
Printed / Typed Name: Mia J. Herring — Signature: [signature] — Date (Month Day Year): 09 11 92

In case of a spill call the Illinois Office of Emergency Response at (217) 782-7860

This Agency is authorized to require, pursuant to Illinois Revised Statute, 1989, Chapter 111 1/2, Section 1004 and 1021, that this information be submitted to the Agency. Failure to provide this information may result in a civil penalty against the owner or operator not to exceed $25,000 per day of violation. Falsification of this information may result in a fine up to $50,000 per day of violation and imprisonment up to 5 years. This form has been approved by the Forms Management Center.

GENERATOR COPY

3-1727 3-1728

EPA

POTENTIAL HAZARDOUS WASTE SITE
TENTATIVE DISPOSITION

REGION: V | SITE NUMBER: IL.0000000720

File this form in the regional Hazardous Waste Log File and submit a copy to: U.S. Environmental Protection Agency; Site Tracking System; Hazardous Waste Enforcement Task Force *(EN-335)*; 401 M St., SW; Washington, DC 20460.

I. SITE IDENTIFICATION

A. SITE NAME	B. STREET	
OLIN CORP	PATTERSON & CARAWAY ROADS	
C. CITY	D. STATE	E. ZIP CODE
JOLIET	ILLINOIS	60430

II. TENTATIVE DISPOSITION

Indicate the recommended action(s) and agency(ies) that should be involved by marking 'X' in the appropriate boxes.

RECOMMENDATION	MARK 'X'	ACTION AGENCY: EPA	STATE	LOCAL	PRIVATE
A. NO ACTION NEEDED -- NO HAZARD					
B. INVESTIGATIVE ACTION(S) NEEDED *(If yes, complete Section III.)*		X			
C. REMEDIAL ACTION NEEDED *(If yes, complete Section IV.)*					
D. ENFORCEMENT ACTION NEEDED *(If yes, specify in Part E whether the case will be primarily managed by the EPA or the State and what type of enforcement action is anticipated.)*					

E. RATIONALE FOR DISPOSITION

INSUFFICIENT INFORMATION

F. INDICATE THE ESTIMATED DATE OF FINAL DISPOSITION *(mo., day, & yr.)*	G. IF A CASE DEVELOPMENT PLAN IS NECESSARY, INDICATE THE ESTIMATED DATE ON WHICH THE PLAN WILL BE DEVELOPED *(mo., day, & yr.)*

H. PREPARER INFORMATION

1. NAME	2. TELEPHONE NUMBER	3. DATE *(mo., day, & yr.)*
P. DIMOCK	886-6710	7-28-80

III. INVESTIGATIVE ACTIVITY NEEDED

A. IDENTIFY ADDITIONAL INFORMATION NEEDED TO ACHIEVE A FINAL DISPOSITION.

B. PROPOSED INVESTIGATIVE ACTIVITY *(Detailed Information)*

1. METHOD FOR OBTAINING NEEDED ADDITIONAL INFO.	2. SCHEDULED DATE OF ACTION *(mo, day, & yr)*	3. TO BE PERFORMED BY *(EPA, Contractor, State, etc.)*	4. ESTIMATED MANHOURS	5. REMARKS
a. TYPE OF SITE INSPECTION (1)				
(2)				
(3)				
b. TYPE OF MONITORING (1)				
(2)				
c. TYPE OF SAMPLING (1)				
(2)				

EPA Form T2070-4 (10-79)

Continue On Reverse

Continued From Front

III. INVESTIGATIVE ACTIVITY NEEDED and PART B - PROPOSED INVESTIGATIVE ACTIVITY *(Continued)*

d. TYPE OF LAB ANALYSIS (1)				
(2)				
e. OTHER *(specify)* (1)				
(2)				

C. ELABORATE ON ANY OF THE INFORMATION PROVIDED IN PART B *(on front & above)* AS NEEDED TO IDENTIFY ADDITIONAL INVESTIGATIVE WORK.

D. ESTIMATED MANHOURS BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES	1. ACTION AGENCY	2. TOTAL ESTIMATED MANHOURS FOR INVESTIGATIVE ACTIVITIES
a. EPA		b. STATE	
c. EPA CONTRACTOR		d. OTHER *(specify)*	

IV. REMEDIAL ACTIONS

A. SHORT TERM/EMERGENCY STRATEGY *(On Site & Off-Site)*: List all emergency actions needed to bring site under immediate control, e.g., restrict access, provide alternate water supply, etc. See instructions for a list of Key Words for each of the actions to be used in the space below.

1. ACTION	2. EST. START DATE *(mo,day,&yr)*	3. EST. END DATE *(mo,day,&yr)*	4. ACTION AGENCY *(EPA, State, Private Party)*	5. ESTIMATED COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED
				$	
				$	
				$	
				$	
				$	
				$	

B. LONG TERM STRATEGY *(On Site & Off-Site)*: List all long term solutions, e.g., excavation, removal, ground water monitoring wells, etc. See instructions for a list of Key Words for each of the actions to be used in the spaces below.

1. ACTION	2. EST. START DATE *(mo,day,&yr)*	3. EST. END DATE *(mo,day,&yr)*	4. ACTION AGENCY *(EPA, State Private Party)*	5. ESTIMATED COST	6. SPECIFY 311 OR OTHER ACTION; INDICATE THE MAGNITUDE OF THE WORK REQUIRED
				$	
				$	
				$	
				$	
				$	
				$	

C. ESTIMATED MANHOURS AND COST BY ACTION AGENCY

1. ACTION AGENCY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES	1. ACTION AGENCY	2. TOTAL EST. MANHOURS FOR REMEDIAL ACTIVITIES	3. TOTAL EST. COST FOR REMEDIAL ACTIVITIES
a. EPA			b. STATE		
c. PRIVATE PARTIES			d. OTHER *(specify)*		